



What do taught postgraduates want?

The Postgraduate Taught Experience Survey 2015

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Quick facts about PTES 2015

- > The Postgraduate Taught Experience Survey (PTES) collects feedback from taught postgraduate students across the higher education sector about their experiences of their programmes. Although taught, Masters students constitute about 80% of respondents. The survey is also answered by students taking postgraduate certificates and diplomas.

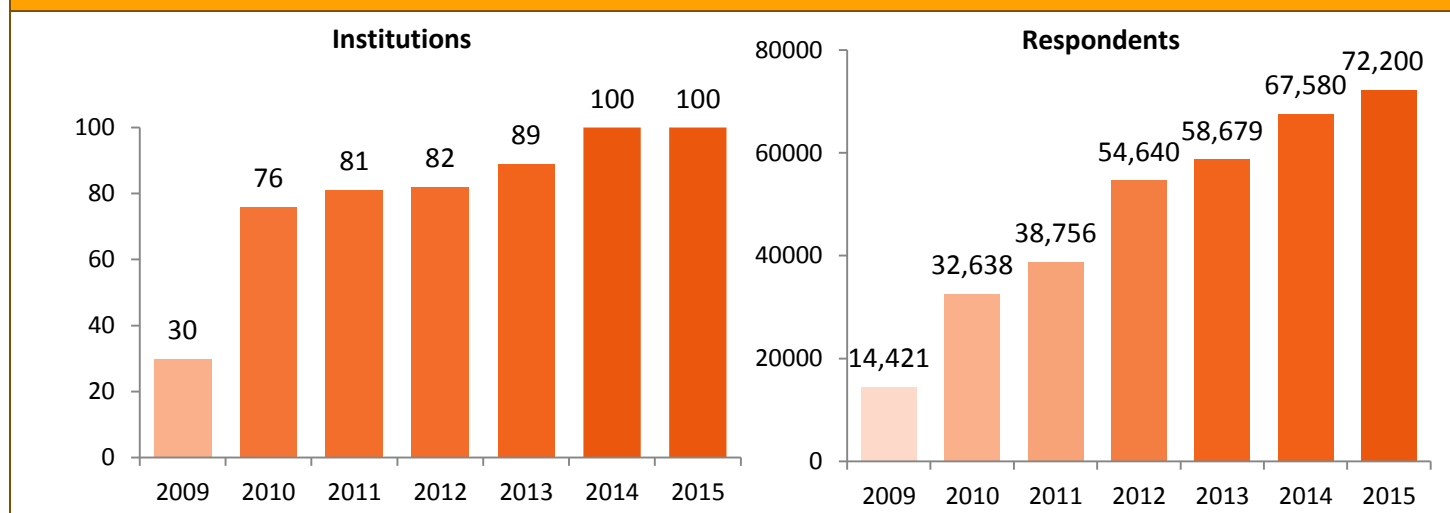
Figure QF1 Key features of PTES

National online survey
Enhancement focus
Institutions can add their own questions
Flexible timing within four-month window
Implemented locally
Institutions' results are confidential
Benchmarking groups

- > PTES ran for its sixth consecutive year in the UK in Spring 2015, with 72,200 students from 100 institutions taking part, and a national response rate of 29.4%. This continues the increase from previous years (67,580 students from 100 institutions had taken part in 2014, with a response rate of 28.3%).
- > It is firmly designed for enhancement; institutional results are not made public, and are provided to institutions to aid reflection on the quality of teaching and the level of student learning within the institution.
- > 100 institutions took part in PTES 2015 (see Figure QF2), 86 of those took part in PTES 2014.

- > The response to PTES 2015 is broadly representative of the UK taught postgraduate cohort, though female students are overrepresented and part-time students underrepresented in the response.
- > This report is designed to provide the sector with an insight into the taught postgraduate experience. For higher education providers (HEPs) seeking to explore and interpret their own results, there are comprehensive institutional benchmarking reports provided to each institution by the HEA along with analysis available via the Bristol Online Surveys platform.

Figure QF2 Participation in PTES, 2009 to 2015



Executive summary

- > The picture of taught postgraduate provision is very encouraging, with 82% of respondents giving a positive rating across their learning experience and 79% rating engagement positively. The proportion satisfied with course remained at 83%, slightly less positive than the 86% of undergraduates who agreed to the same statement in the National Student Survey.
- > Motivations to take taught postgraduate study were varied and often overlapping, with over two-thirds (69%) of respondents indicating more than one motivation. Part-time students tend to have more career-focussed motivations, as do those taking certificates and diplomas.
- > Younger respondents tend to be motivated towards study by both personal interest and generally improving their employment prospects, career is more important around middle-age, while older respondents are most likely to be motivated by interest in the subject.

“The results underline the need for taught postgraduate courses to flexibly accommodate the diverse motivations of students.”
- > The motivations of students in taking postgraduate study is linked to what experiences are most important to them. For example, where respondents were motivated by career, experiences related to their career aspirations were more important to their overall evaluation of their course. These results underline the need for taught postgraduate courses to flexibly accommodate the diverse motivations of students.
- > The experience of the student around their learning and teaching was most closely associated with overall satisfaction with the course, particularly how stimulating the course was, and whether it enhanced their academic ability.
- > The prior experience of students impacted on their responses. Students with recent study experiences close to postgraduate level were less positive about course challenge, intellectual stimulation, and development of their academic ability. This was evidenced through strong associations with age, level of previous qualification, time out of study, and country of origin.

“Results indicated that the development of academic skills may be harmed by high workload.”
- > Full-time students working towards a postgraduate certificate or diploma were significantly less likely to agree their workload was manageable. For example, while 79% of full-time Masters students in Education agreed their workload was manageable, only 55% of those taking a full-time certificate or diploma in the subject agreed. Results indicated that the development of academic skills may be harmed by high workload.
- > Respondents taking a certificate or diploma appeared to find research skills and independent learning less relevant, but were particularly affected by organisation of the course. Course organisation impacted relatively strongly upon overall course satisfaction for these students. This indicates that the smooth running of these courses should be a priority to minimise impact upon overall satisfaction and learning outcomes.

1. Introduction

1.1 Background

PTES is run by the Higher Education Academy (HEA) in conjunction with participating institutions. The HEA provides the online template, as well as guidance, resources and support, while the survey is implemented locally, with institutions able to add their own bespoke questions and decide on survey timing within a four-month window. PTES is overseen by the HEA Surveys Steering Group, whose members include both senior decision-makers and operational staff from HEIs and other sector bodies, including the National Union of Students. Participation in PTES is included as part of institutions’ HEA subscriptions.

PTES is designed with enhancement in mind – findings from the survey are intended to help inform discussions and decisions within institutions about improvements to teaching and learning. The survey was redeveloped in 2014 after a process of consultation with the sector and research with taught postgraduate students to reflect priorities for enhancement, while streamlining the survey to support higher response rates.

The questionnaire includes items on the full study cycle of taught postgraduates - from motivations and information used to support course choice, experiences while on the course, through to skills development and preparation for a future career. The questionnaire also asks a range of demographic questions including on the educational background of students and how they fund their studies. PTES contains some questions from the undergraduate National Student Survey (NSS), allowing institutions to compare the experience of their undergraduate and taught postgraduate provision, but also contains more advanced questions suitable for postgraduate cohorts. The survey also goes into more depth and detail than the NSS, for example asking about students’ engagement and motivations.

Institutional-level results are confidential so cannot be used to form league tables. This gives institutions the freedom to treat survey results as useful but partial indicators of where things might be going well and where improvements might be required. Their effective use in enhancement requires interpretation in conjunction with other information (often qualitative) from students and staff. This is particularly important at taught postgraduate level where the small and specialist nature of many courses can result in small samples and means care should be taken not to use these results in isolation.

Nonetheless, knowing how they are doing relative to others can help institutions understand where they need to improve. PTES allows benchmarking through the use of benchmarking groups - while keeping institutional-level results confidential. These allow participating institutions to compare their own performance with the average performance of the institutions in each group. There are currently ten standard benchmarking groups, while the HEA now also offers the ability for institutions to choose their own custom benchmarks as an add-on service. PTES is also available for use internationally, allowing participants to compare their students’ experience with those in the UK higher education sector.

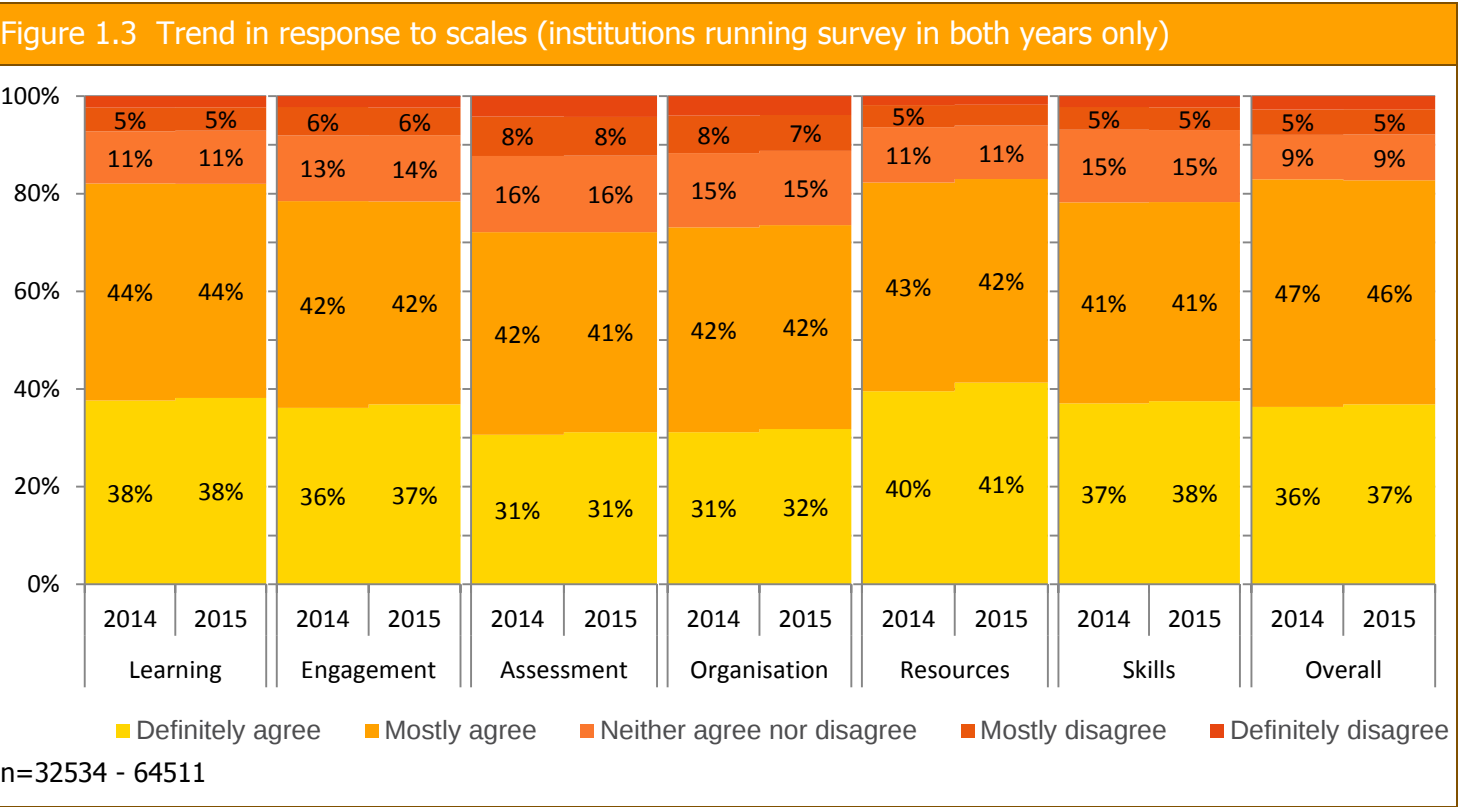
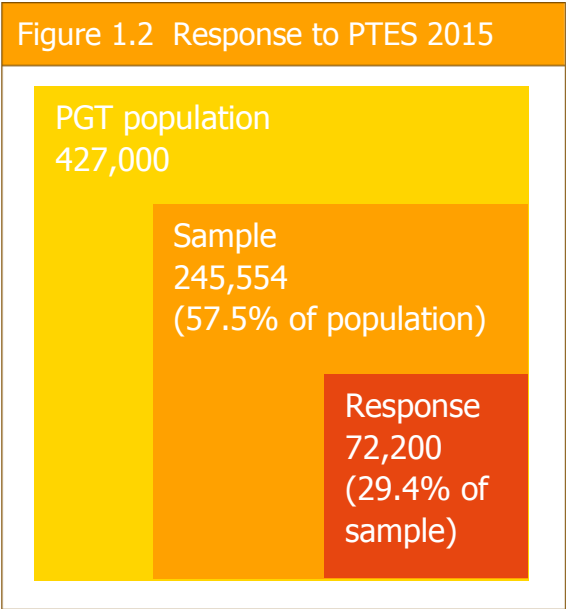
Figure 1.1 Standard PTES benchmarking groups		
Pre-92	Scottish	million+
Post-92	Welsh	Russell Group
Small and specialist	London	University Alliance
		GuildHE

1.2 Overall results

The response rate of 29.4% for PTES 2014 continues the upward trend of participation, see Figure 1.2. The 72,200 PGT students who responded largely reflect the PGT population (see Appendix 1). Part-time students were under-represented and so overseas students were over-represented in the response, as were female students. As in 2014, 100 Higher Education Providers (HEPs) took part.

Trend data is limited as the survey was redesigned in 2014. Analysis indicates that, within the 86 HEPs who ran the survey in both years, there is little movement across scales between 2014 and 2015, as shown in Figure 1.3. Shifts in the demographics of response place a slight caution over evaluating trends without further accounting for changes in, for example, subject studied.

Overall the picture of taught postgraduate provision is very positive, with 82% of respondents giving a positive rating across their learning experience and 79% rating engagement positively. Even for assessment, where there was the highest level of negative responses, just 12% of responses were negative across the scale. Within this area, 17% of respondents disagreed with the statement ‘feedback on my work has been prompt’, which was the most negative statement. The overall satisfaction with course remained at 83%, slightly less positive than the response from undergraduates to the same question in the National Student Survey (86%). Analysis of the scales indicates that they are reliable, with very similar internal consistency and correlations to that found in the analysis of PTES 2014 (Soilemetzidis et al 2014 p12).



2. What do taught postgraduates want?

Previous national reports on the PTES have given a general overview on the full range of items covered in the survey. This thematic report seeks to explore a particular question - what students on a taught postgraduate course want. This is a broad question, but prompts useful enquiries into a large and complex dataset. The results reported here are for PTES 2015, however findings are checked through analysis of the PTES 2014 dataset. With this combined dataset, covering over 100,000 responses, there is the opportunity to illustrate relationships that individual Higher Education Providers (HEPs) running the survey would struggle to evidence.

In constructing this report, reference will be made to the qualitative analysis of comments from PTES 2014 (Zaitseva and Milson 2015). The findings of both their qualitative research and the quantitative analysis of PTES 2015 presented here are expected to apply to the general taught postgraduate population, as both cohorts reflect that population relatively closely.

The report begins with an exploration of student motivations. PTES allows respondents to indicate multiple motivations, which makes analysis more difficult but allows room for the complexity that reflects real life motivations into study (see Mellors-Bourne et al 2014 pp28-32). Understanding what motivated taught postgraduate students (PGTs) to study is useful in understanding what they want out of their studies.

From this exploration, the report turns to examining the link between different aspects of experience and overall satisfaction across different motivational groups. This exploration extends previous work exploring the importance of different scales in PTES for different groups of respondents (Leman et al 2013 p22). This analysis seeks to understand some of the relationships that underlie stated satisfaction, or dissatisfaction, with a course.

From these findings, challenge and workload are evidenced as two related areas of interest. If a course challenges and stretches a student, they are likely to gain more from their experience of higher education (Chickering and Gamson 1987). However, there is also evidence that where workload becomes unmanageable and the student cannot devote sufficient time to each task, they resort to surface and strategic learning techniques. In this case, students do not gain from a richer engagement that would enable them to develop and stretch their academic skills. This report explores these aspects through examining differences around the prior experiences of respondents, and the discipline and qualification they are studying.

The aim is to highlight a particular area of the taught postgraduate experience, however there is much more that PTES covers. To see the detail, please look on the HEA Surveys page on the Higher Education Academy website, where a more complete breakdown of all the results is available.

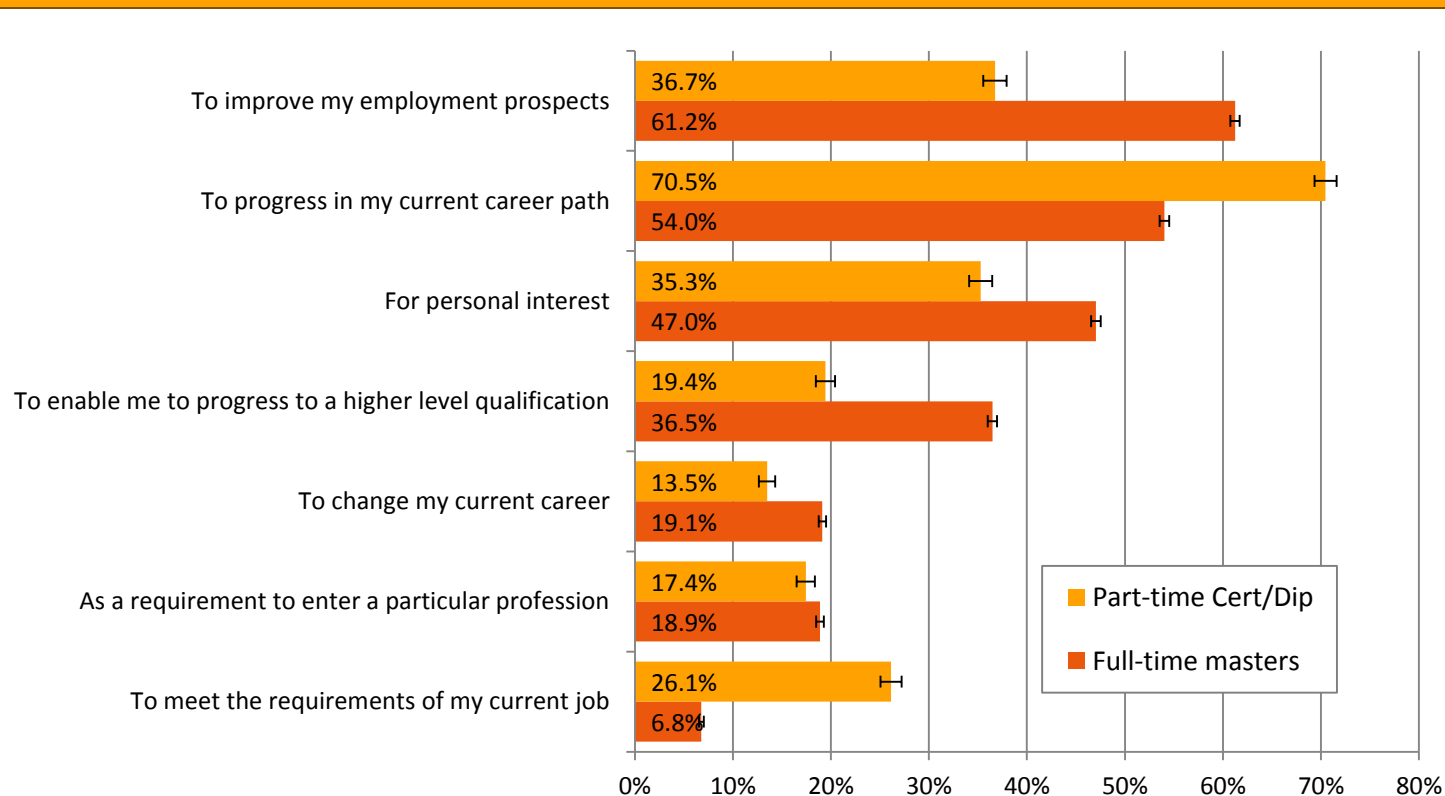
3. What motivates taught postgraduates to study?

Taught postgraduates are more diverse as a group than undergraduates, with motivations overlapping but differing across and within populations (Mellors-Bourne et al 2014 pp28-32). The motivations of PGTs are largely orientated around career aspirations, see Figure 3.1.

Over two-thirds (69%) of respondents selected more than one motivation towards taught postgraduate study. Motivations are generally grouped around: study being a progression or requirement of current career, changing career, and, personal and academic interests combined with general career aims. However, the motivations of PGT students are sufficiently varied to make any generalisation into particular groups quite difficult. Nearly two-thirds (61%) of full-time Masters students wanted to improve their employment prospects. Around half were motivated by personal interest and/or by progressing to a higher level qualification. Part-time postgraduates taking a certificate or diploma were more likely to have specific motivations, 70% being motivated by a wish to progress in their current career, and 26% studying as a requirement of their current job. In general, part-time students tend to have more career-focused motivations, as do those taking certificates and diplomas. By comparison, full-time respondents were more likely to have general career aspirations.

There is a strong relationship between what motivates a student and age. Younger respondents tend to be motivated by both personal interest and general employment prospects, while older respondents are more likely to be motivated purely by interest in the subject, see Figure 3.2. Respondents in their early 30s were most likely to be motivated by career.

Figure 3.1 Motivations to take taught postgraduate study (full-time Masters and part-time Cert/Dip)



n=6334-40028. Error bars indicate the 95% confidence interval.

Overseas students across all ages are more likely than home students to be motivated by a wish to improve their employment prospects. There are clear differences across discipline, for example, Figure 3.3 shows that progression in a current career was a motivation for nearly two-thirds (63%) of respondents taking Social Work but for just a third (33%) of those taking English-based studies. When considering the proportion of respondents motivated by personal interest, this relationship was reversed. Personal interest was a motivation for over two-thirds (68%) of respondents taking English-based studies and just over a quarter (27%) of those taking Social Studies. There is a relatively strong negative association ($r=-0.6$, $n=41$) between career progression and personal interest across discipline.

Figure 3.2 Top four motivations by age (UK students only)

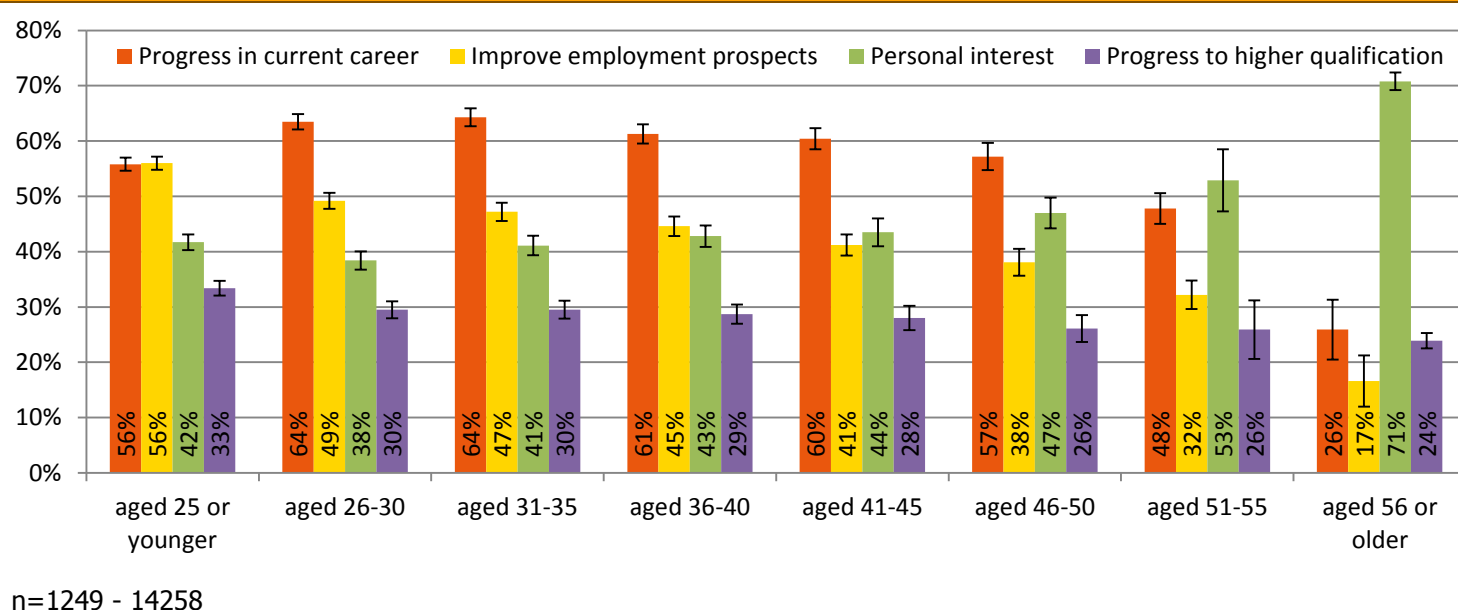
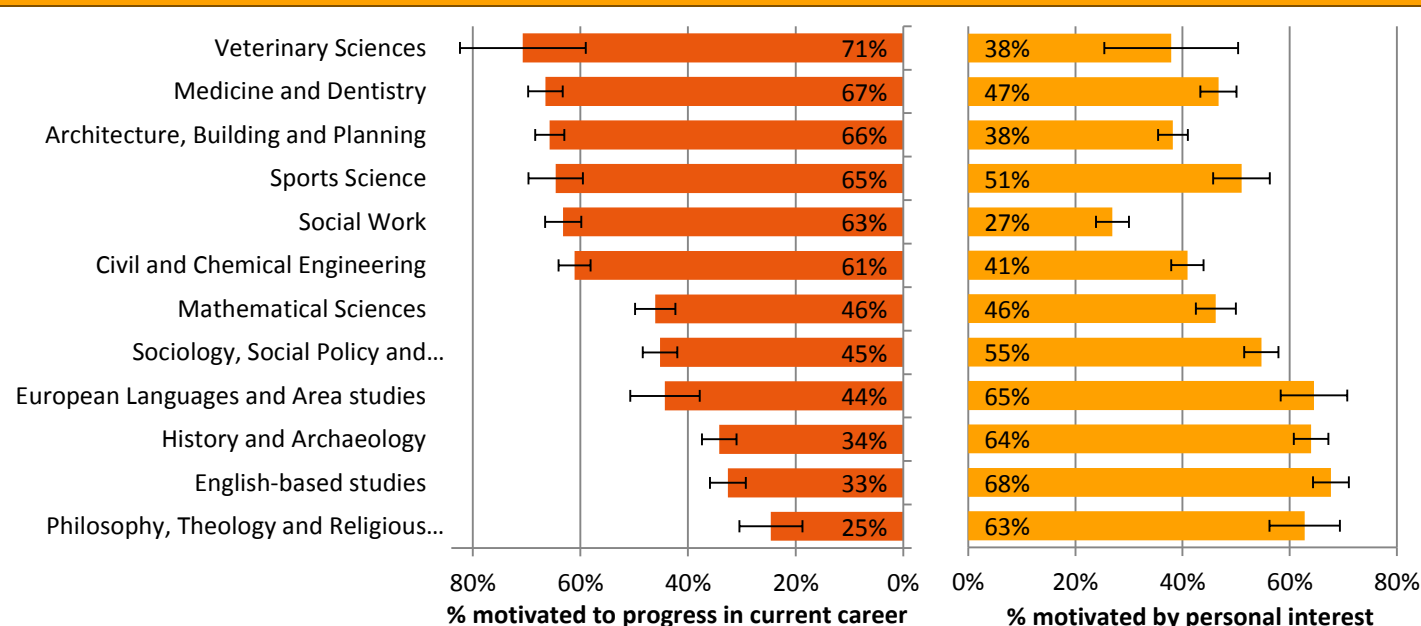


Figure 3.3 Motivated by current career and personal interest by selected discipline*



*full-time students taking Masters

4. What is important to taught postgraduates?

To understand what PGT students want out of their studies, we can look at the relationship between aspects of their experience and their overall satisfaction with their course. Figure 4.1 illustrates that different aspects of the student experience are fairly closely related. For PGT students as a whole, learning and teaching is most closely associated with overall satisfaction, indicating this area is the most important part of their experience. However, we would expect that this might vary according to what motivated the student to study.

Figure 4.1 Correlation between scales and overall satisfaction with quality of course

	Overall satisfaction	Quality of Learning and Teaching	Skills development	Organisation and management	Engagement	Assessment and feedback	Dissertation or major project
Quality of learning and teaching	0.78						
Skills development	0.69	0.68					
Organisation and management	0.69	0.69	0.60				
Engagement	0.67	0.76	0.66	0.68			
Assessment and feedback	0.59	0.63	0.52	0.60	0.60		
Dissertation or Major Project	0.53	0.58	0.52	0.53	0.54	0.52	
Resources and services	0.37	0.40	0.42	0.44	0.43	0.36	0.37

n=38227 – 71954

To explore the link between what motivated students into study and what was most important to them, respondents were divided into seven motivation groups (see Appendix 2 for more details on the cluster analysis). The skills development scale and learning and teaching scale were split into smaller scalelets (See Appendix 2 for details on scalelets), to separate out particular parts of the student experience. Analysis then evaluated how much each scale or scalelet, representing part of the student experience, predicted overall satisfaction within each motivation group. The more a scale or scalelet predicted overall satisfaction, the more important that part of the student experience was to respondents in the group.

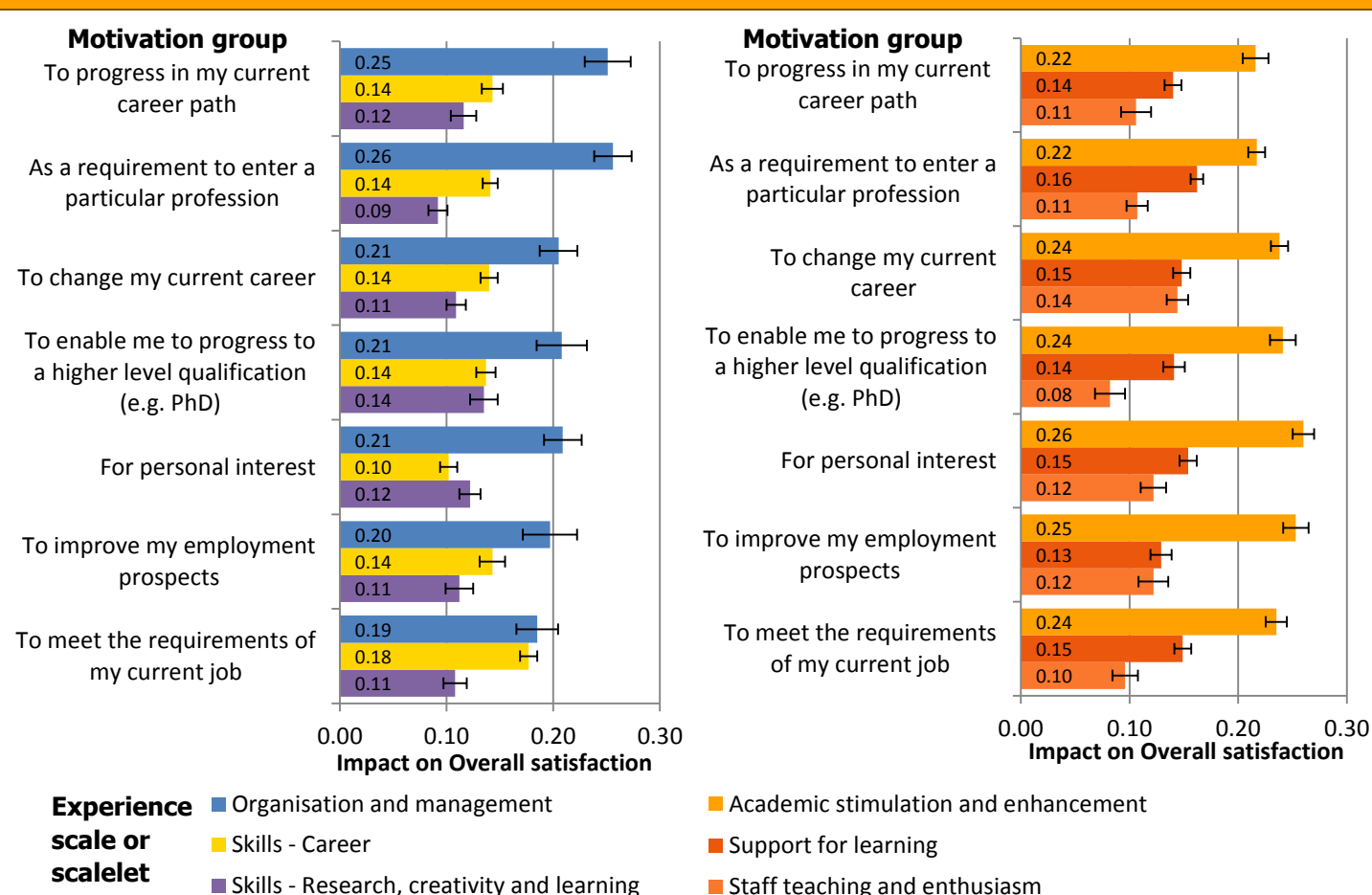
Figure 4.2 indicates that there are differences between groups regarding what matters for overall student experience. Career had more impact on overall satisfaction where postgraduate study was a requirement for their current job, and less impact for respondents motivated by personal interest in the subject. Similarly, progression in research, creativity and learning skills had a higher impact for those motivated by a wish to progress to a higher level qualification.

Those with personal interest in the subject or wishing to change their career are more likely to have their overall experience impacted by the quality of learning and teaching, particularly around academic stimulation and enhancement. The results also indicate that respondents wishing to progress to a higher level qualification tended to find teaching less important, perhaps reflecting a higher level of independent study.

Some of these impacts are related to the needs of students. For example, the impact of organisation and management upon overall experience for those entering a particular profession, and those progressing in their current career, seems related to pressures upon PGCE students and others taking a postgraduate certificate or diploma. These respondents were more likely to indicate specific motivations to study. It seems likely that these students would be particularly impacted by organisation, such as how appropriate their timetable was, or whether changes were communicated effectively. This issue is explored further in section 6.

These results suggest that where respondents were motivated by a particular goal, related parts of their experience are more important to their overall evaluation of their experience. Conversely, parts of their experience related to goals that are not important to them will have a lesser impact on their overall experience. The learning and teaching scalelet around academic stimulation and enhancement was most influential for most of the motivation groups. This scalelet is formed of two items – the course being intellectually stimulating and the course having enhanced academic ability. Aside from a relatively strong correlation to overall satisfaction, these items are also highly correlated with skills development and course challenge. The relationship between this latter factor and aspects of learning and teaching is the topic of the next section.

Figure 4.2 Analysis of the impact on overall satisfaction due to different scales, by motivation group*



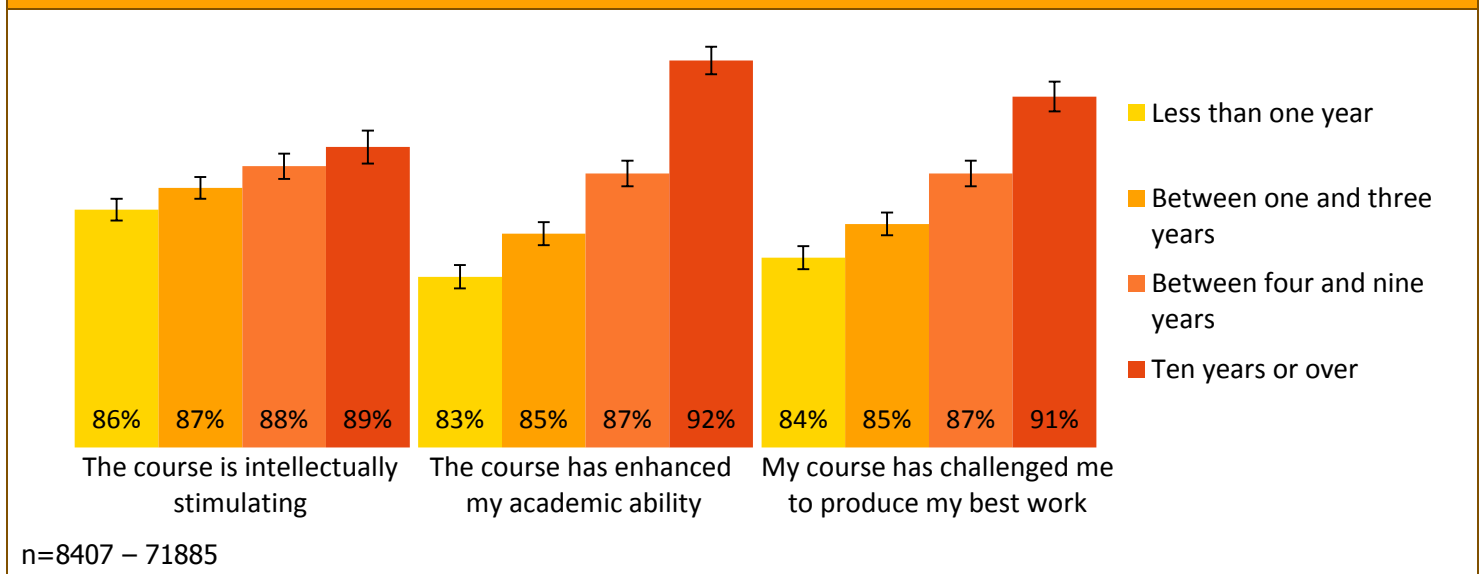
n=5876 – 13228.

*Stepwise linear regression models indicated that, partly due to high correlation between scales, only those scales shown in Figure 4.2 contributed significantly to the overall satisfaction measure. Linear regression was then calculated using these only, with standardised Beta shown here. Relationships were verified with a separate analysis of the PTES 2014 dataset, which found some differences were spurious and therefore some caution has to be placed on the conclusions.

5. Course challenge and the taught postgraduate

With a diverse cohort of students, ensuring that every student is challenged and stimulated by their experience will be difficult. Zaitseva and Milsom (2015) indicate that an appropriate level of study is difficult to achieve, with some students overwhelmed while others are frustrated at content repeated from their undergraduate studies. Figure 5.1 illustrates how the prior experience and expectations of respondents impacted on their perceptions of challenge, intellectual stimulation, and academic development. Respondents who were returning to study after a gap of ten years or over were much more likely to be positive about the course, with 92% agreeing the course had enhanced their academic ability compared to 83% for those progressing straight from another period of academic study. However, a good deal of this effect is explained by the age of the respondent, their differing motivations, and engagement. It should be noted that these factors have broadly similar impacts on other measures of experience, such as for skills development and course organisation.

Figure 5.1 Course challenge, intellectual stimulation and academic enhancement, by time out of study

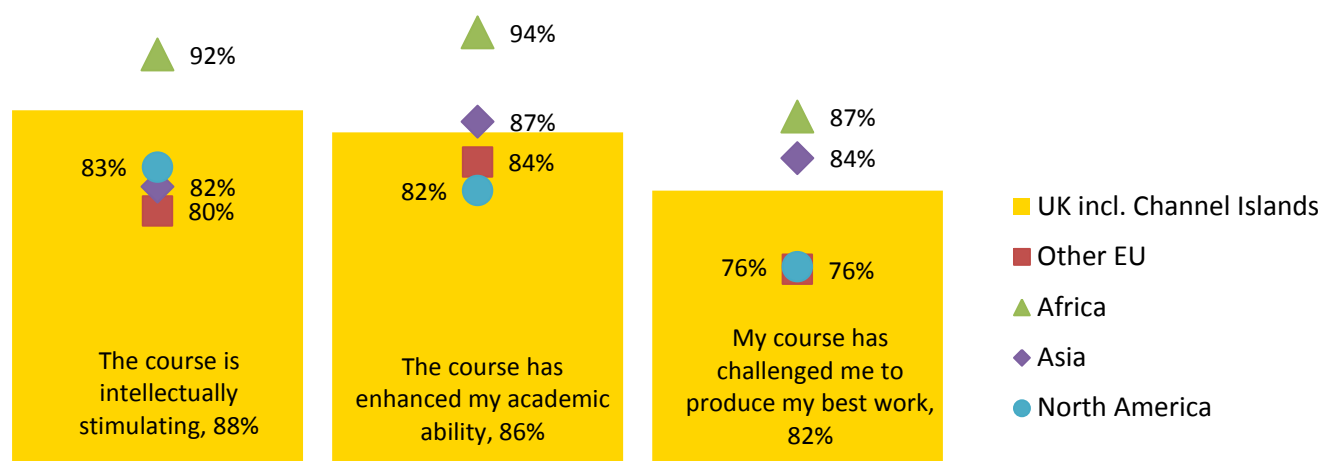


Respondents entering study with a qualification below undergraduate level were more positive than those holding an undergraduate degree, and those holding an undergraduate degree were more positive than those holding a postgraduate qualification. Figure 5.2 shows that respondents from Africa were more positive than UK respondents, while those from other EU countries and North America were less positive. These differences indicate that prior experience has a significant impact on perceptions of course stimulation and challenge.

International students tend to be located in particular disciplines. Nearly half (44%) of the respondents from Asia were studying business and administrative studies. Respondents studying business tend to be less positive about the course being intellectually stimulating, see Figure 5.3. Discipline effects were therefore reflected in the overall figures for respondents from Asia, but also tended to dominate differences associated with fluency in English, mode of study, and the qualification being studied for.

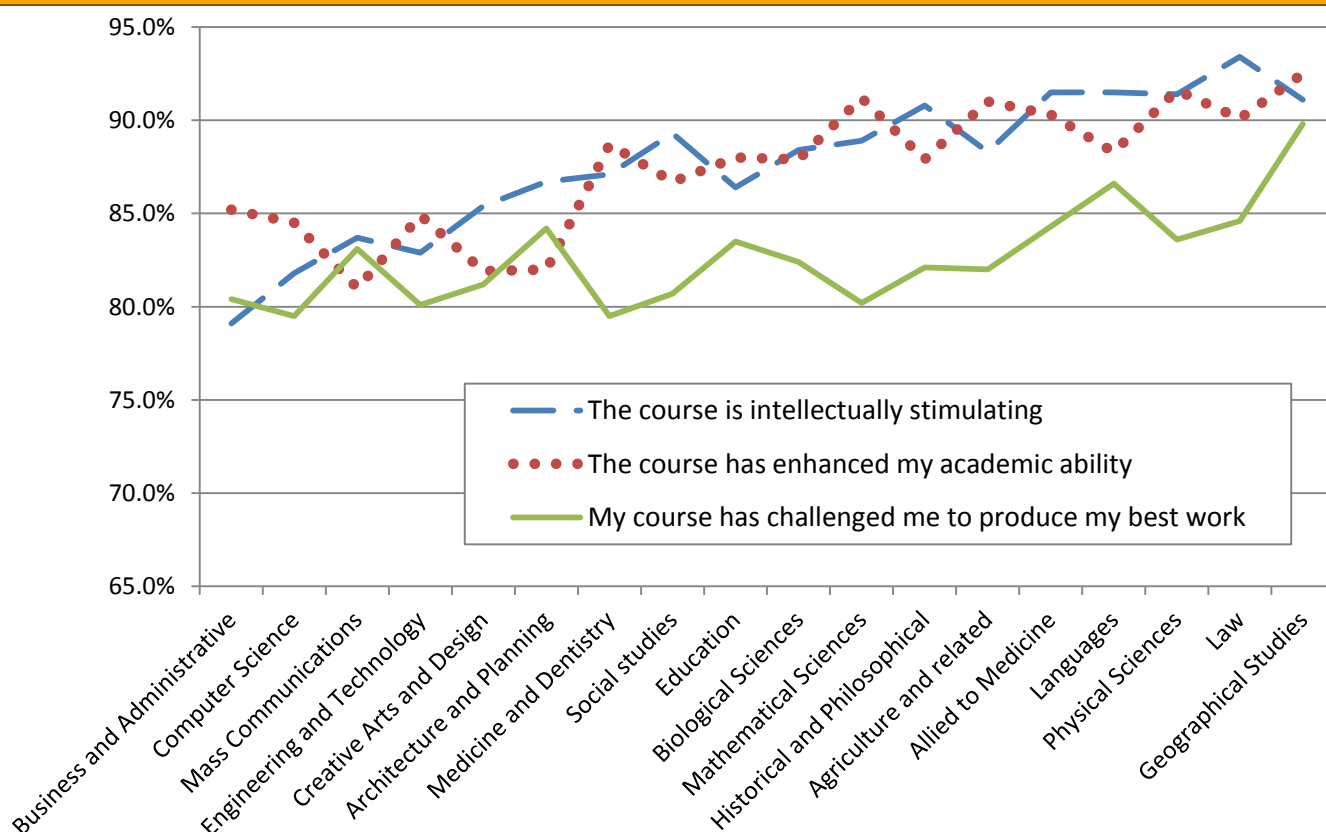
Modelling indicated that institution and discipline had greatest impact on perceptions of course. Figure 5.3 indicates a clear relationship between perceptions of intellectual stimulation and enhancement of academic ability, but the relationship to course challenge is weaker. Geographical studies, Law, and Physical Sciences had the strongest results around course stimulation, academic enhancement, and challenge. Business and Administrative Studies, Computer Science and Mass Communications had relatively negative perceptions of these measures.

Figure 5.2 Course challenge, intellectual stimulation and academic enhancement, by country of origin



n=490 – 61780 (Masters students with an undergraduate level qualification)

Figure 5.3 Course challenge, intellectual stimulation and academic enhancement, by discipline*



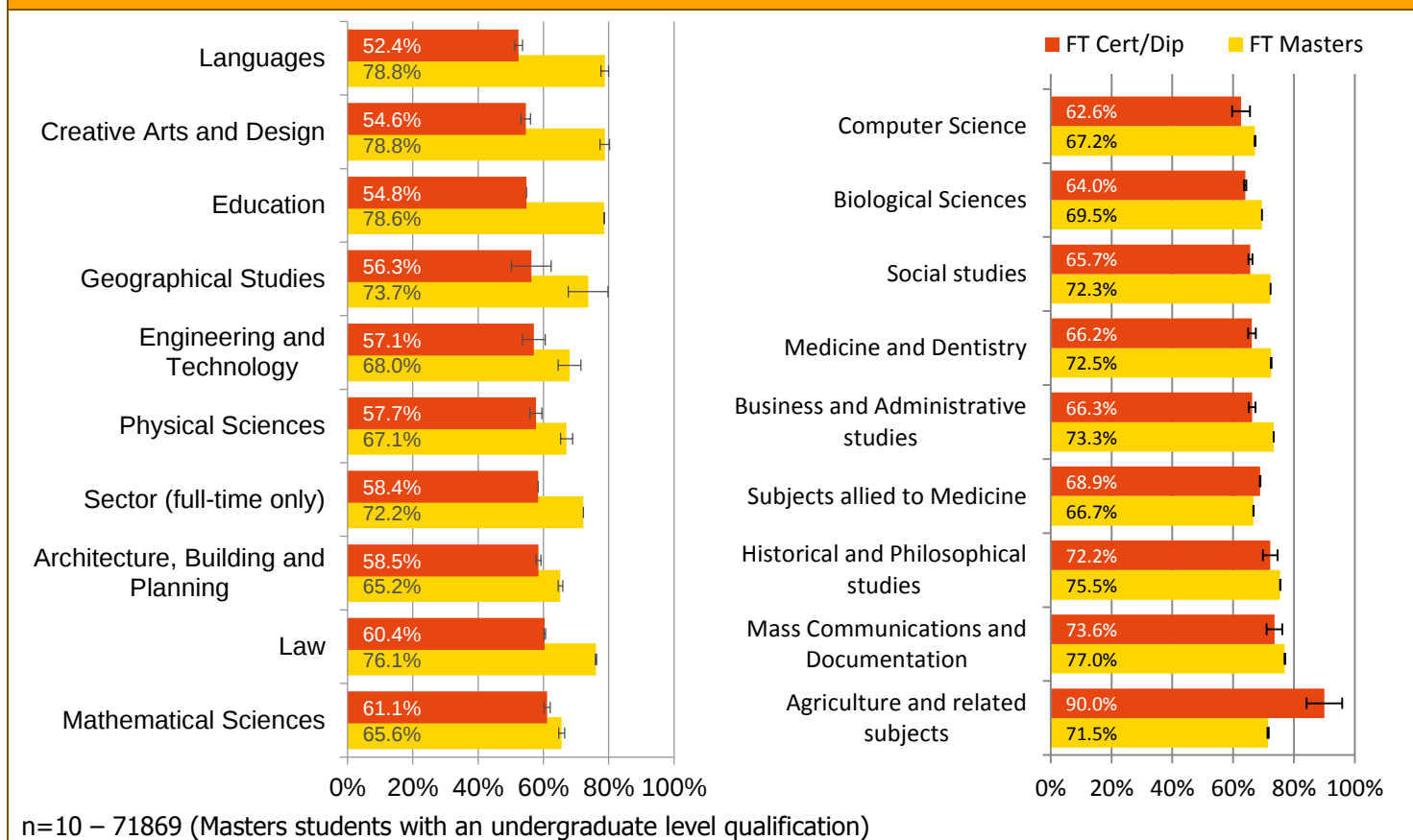
n=490 – 61780

*full-time UK Masters students with an undergraduate level qualification. The discipline of Veterinary sciences was omitted due a large margin of error. Confidence intervals range from $\pm 1.5\%$ to $\pm 5.3\%$. Exploratory linear modelling within SPSS found the most important predictors of the course scalelet were institution, discipline, country of origin, motivations, and qualification being studied for.

6. Workload and the taught postgraduate

Analysis in section 4 indicated that what aspects of the course are important might depend on pressures the student is under. The most significant difference across workload was by type of qualification studied, and in particular the difference between full-time Masters and those taking full-time certificates or diplomas (Cert/Dips). For some disciplines the numbers studying full-time Cert/Dips were too low to confidently isolate effects from institutional differences. However, for large cohorts, such as with Education, the differences were marked. As Figure 6.1 shows, while 79% of full-time Masters students in Education agreed their workload was manageable, however for those taking a Cert/Dip this was just 55% of respondents. In general, full-time students working towards a postgraduate certificate or diploma were significantly less likely to agree their workload was manageable.

Figure 6.1 Workload is manageable, by qualification studying for



An unmanageable workload raises concerns about the ability of the student to be able to learn in depth. The analysis of Zaitseva and Milsom (2015) suggests that workload pushes the student into surface learning or strategic learning, 'getting by' rather than engaging in depth with content. While there were no clear differences between full-time Masters and Cert/Dip respondents for general items on teaching, see Figure 6.2, there were significant differences on items around perceptions of enhancement of academic ability and learning skills. The relatively large proportion of 'neither' responses compared to what would be expected indicates that for research skills and independent learning, these skills are perceived less relevant for those taking a certificate or diploma (see Appendix 4). While this may be due to these aspects being less relevant for the main disciplines studied in this way, the perception of non-applicability might also reflect a wish by respondents to focus on skills that would allow them to pass the course. The difference in response to the statement asking whether the course had enhanced academic ability appeared more robust. 9.5% of

respondents taking a certificate or diploma disagreed with the statement, compared to 4.6% of those taking a Masters degree. This raises a concern that unmanageable workloads resulted in a reduction in development of core academic skills for some respondents.

As noted in section 4, students who were motivated into study in order to gain a qualification to enter a particular profession, or progress in their current career, valued the organisation of the course. This is illustrated in Figure 6.3, which shows how organisation and management was the most important factor for students in Education studying a certificate or diploma. While teaching remained most important overall, the results point to those studying postgraduate certificates or diplomas full-time being particularly affected by any issues with organisation. In general these students were significantly less likely to agree that organisation had gone well on their course, with the resulting impact on their overall satisfaction with the course.

Figure 6.2 Agreement with items on learning & teaching, by mode of study and qualification studying

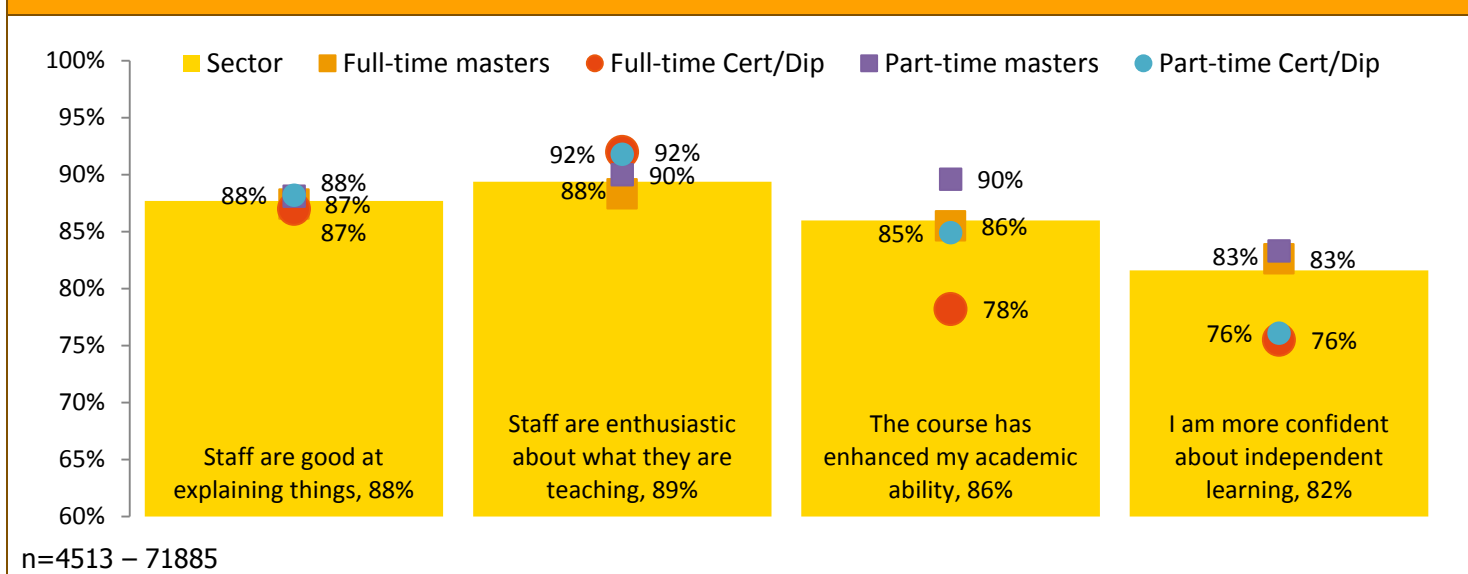
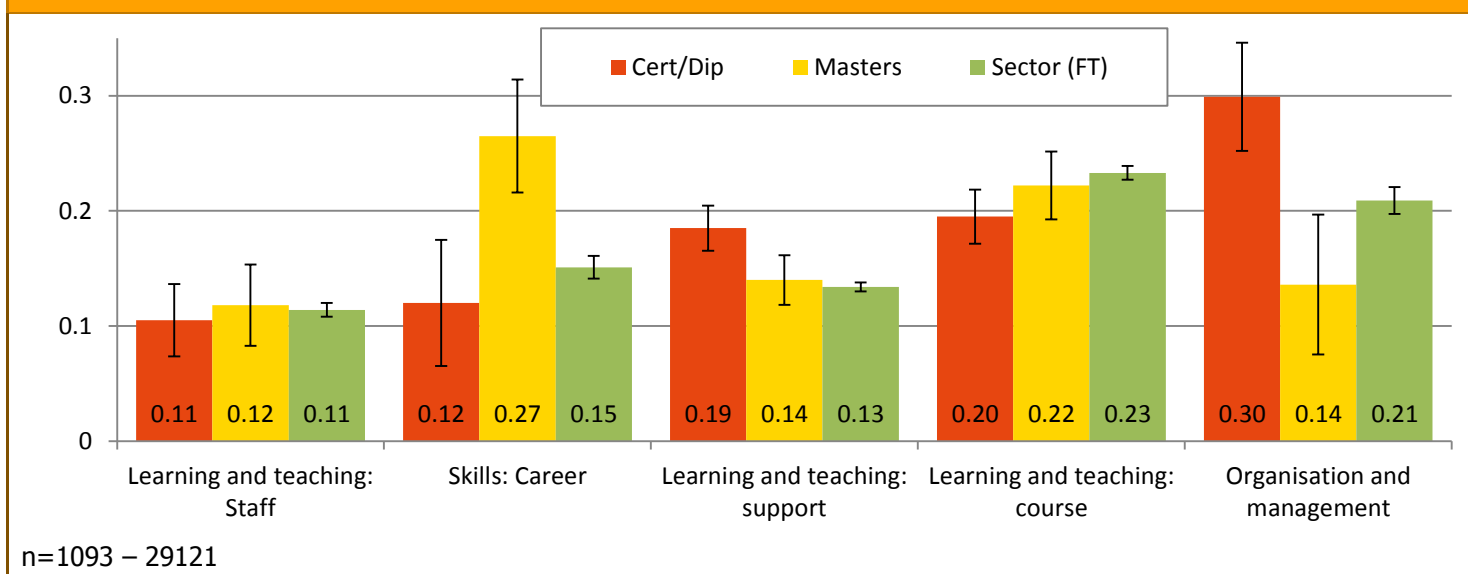


Figure 6.3 Influence of scales on overall satisfaction, full-time in Education, by qualification studying*



*Figure 6.3 displays standardised Beta values with 95% confidence intervals for the main predictors. Calculated through three separate linear regressions, the Resources scale and Engagement scale was not entered into the model.

7. Conclusion

The diverse and overlapping motivations of students as to why they take taught postgraduate study limits the extent to which blanket recommendations can be made. Forthcoming research by Bokhove and Muijs (2016), into HEA student surveys, reinforces earlier findings from research on the National Student Survey (Marsh and Cheng 2008) that variation at the student level is the most powerful influence on student perceptions and experience. This individual level variation in motivations, prior experience, and expectations, has been evidenced here.

The results point to a link between what motivates students towards postgraduate study and what experiences are most important to them. However, across these groups a course that stimulates and enables the enhancement of academic ability is valued. The results suggest that students starting a taught postgraduate course with a high level of skills need a correspondingly high level of challenge. Not only would this benefit their overall satisfaction with the course, but should also benefit their learning outcomes (Chickering and Gamson 1987).

Respondents taking full-time postgraduate certificates and diplomas are often doing so alongside work placements. That nearly half do not think their workload is manageable is of concern, not least because of a possible impact on their depth of learning. However, perhaps the key issue is that for these students good organisation is highly important. Consistency was raised as a key issue by Zaitseva and Milsom (2015) in their research. Consistency, good communication, and awareness of student need is likely to drive a better student experience, but also allow those struggling with workload to focus on gaining subject knowledge and developing academic skills, so that they to gain the most out of their study.

Enabling teaching staff to understand a cohort and work with students in creating an experience that inclusively and flexibly accommodates diversity of prior-experience and motivation will enhance the student experience and improve learning outcomes. In essence this is just good teaching, but the findings here reinforce how important it is that such a process is supported.

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Appendix 1. Profile of respondents

This section gives a summary of the profile of respondents to PTES 2015 and a comparison with the HESA data on PGT population. The under-representation of part-time students is correlated with an over-representation of overseas students. The over-representation of female students is typical in survey response.

Figure A1 Comparison of PTES 2015 population and comparison with HESA

JACS level 1 Subject	PTES	HESA	Difference
Medicine and Dentistry	3.5%	2.7%	0.9%
Subjects allied to Medicine	9.0%	11.9%	-2.9%
Biological Sciences	7.4%	4.5%	2.8%
Veterinary Sciences	0.3%	0.1%	0.2%
Agriculture and related subjects	1.0%	0.5%	0.4%
Physical Sciences	2.8%	1.8%	1.1%
Mathematical Sciences	1.5%	0.7%	0.7%
Computer Science	3.3%	2.8%	0.5%
Engineering and Technology	6.9%	5.9%	1.0%
Architecture, Building and Planning	3.2%	2.9%	0.3%
Social studies	8.4%	8.9%	-0.5%
Law	4.3%	4.3%	0.0%
Business and Administrative studies	22.7%	23.2%	-0.5%
Mass Communication and Documentation	2.3%	2.1%	0.3%
Languages	3.4%	2.3%	1.1%
Historical and Philosophical studies	2.8%	2.2%	0.5%
Creative Arts and Design	3.6%	4.2%	-0.6%
Education	13.7%	18.5%	-4.8%
Mode of study			
Full-time	65.5%	50.7%	14.8%
Part-time	34.5%	49.3%	-14.8%
Highest qualification on entry			
Qualifications below undergraduate degree	2.6%	1.9%	0.6%
Undergraduate degree or equivalent	73.5%	74.6%	-1.0%
Postgraduate degree	21.0%	20.4%	0.5%
No academic qualifications but professional experience	0.7%	1.0%	-0.3%
Other	2.2%	2.1%	0.1%

Figure A1 (continued) Comparison of PTES 2015 population and comparison with HESA

Age	PTES	HESA	Difference
25 years old or younger	43.9%	39.6%	4.3%
26-30 years old	20.3%	22.8%	-2.5%
31-35 years old	11.5%	11.4%	0.1%
36-40 years old	8.0%	10.5%	-2.5%
41-45 years old	6.3%	6.8%	-0.5%
46-50 years old	4.9%	5.9%	-1.0%
51-55 years old	2.8%	2.5%	0.3%
56 years old or older	2.2%	2.1%	0.1%
Gender			
Male	41.7%	57.8%	-16.1%
Female	58.3%	42.2%	16.1%
Disability			
Consider self to have a disability	7.1%	6.0%	1.1%
Does not consider self to have a disability	92.9%	94.0%	-1.1%
Residence			
UK	50.4%	64.0%	-13.6%
Other European Union (EU)	12.1%	7.5%	4.7%
Non-EU	37.5%	28.5%	9.0%
Ethnicity (UK students only)			
White	81.70%	80.6%	1.1%
Black	5.20%	6.2%	-1.0%
Asian	6.50%	9.3%	-2.8%
Other	6.80%	3.9%	2.9%

Appendix 2. Motivation analysis and scalelets

Cluster analysis indicated a relatively stable clustering around each motivation and while some information was lost in this process, it enabled useful analysis across motivations. Two-step cluster analysis with SPSS on the PTES 2015 dataset was carried out, confirmed with analysis of 2014 dataset and a re-ordered dataset. Clusters were automatically determined using BIC, the average silhouette measure was 0.4.

Figure A2.1 shows how the cases are clustered together. To take cluster 1 as an example, all the respondents in this group indicated they were motivated to study because they wished to change their current career. Many respondents in this group also indicated they wished to improve their employment prospects or had personal interest in the subject of study. In the main body of the report each motivation cluster is referred to by the primary motivation, highlighted in Figure A2.1, but many of these respondents would have also had other motivations to study.

Figure A2.1 Count of respondents within each motivation cluster, by motivation to study

	Motivation cluster						
	1	2	3	4	5	6	7
To progress to a higher ... qualification	6017	4592	24839	6130	7631		
To progress in my current career path	8172	9421	13791	6863	13424	15525	14458
To change my current career	19169	2161			7155		
To improve my employment prospects	10925	7402	16045		14204	26588	
... requirement to enter a ... profession		3648			23762		
... meet the requirements of my ... job		13267					
For personal interest	9030	6128	9849	15602	10188	13853	

Figure A2.2 Correlation of scalelets and scales

	Skills scalelets		Learning and teaching scalelets			Main scales				
	Career	Skills	Staff	Course	Support	Engagement	Assessment and feedback	Dissertation	Organisation & management	Resources and services
Career		0.67	0.48	0.55	0.50	0.58	0.46	0.45	0.53	0.36
Skills	0.67		0.51	0.64	0.50	0.62	0.49	0.50	0.56	0.40
Staff	0.48	0.51		0.64	0.64	0.64	0.56	0.50	0.59	0.34
Course	0.55	0.64	0.64		0.53	0.61	0.49	0.44	0.53	0.30
Support	0.50	0.50	0.64	0.53		0.68	0.56	0.55	0.63	0.36
Engagement	0.58	0.62	0.64	0.61	0.68		0.60	0.54	0.68	0.43
Assessment and feedback	0.46	0.49	0.56	0.49	0.56	0.60		0.52	0.60	0.36
Dissertation	0.45	0.50	0.50	0.44	0.55	0.54	0.52		0.53	0.37
Organisation and management	0.53	0.56	0.59	0.53	0.63	0.68	0.60	0.53		0.44
Resources and services	0.36	0.40	0.34	0.30	0.36	0.43	0.36	0.37	0.44	

The scalelets were constructed through referring to inter-item correlations and then checking scale reliability. The aim was to construct scalelets from highly correlated items that would aid regression while giving greater levels of detail that was possible with the full scales. Figure A2.2 shows how the correlations between scalelets were of a similar order to correlations to the main scales. Figure A2.3 shows the evaluation process for the scalelets. Items that were highly correlated were considered for inclusion. It should be noted that exploratory factor analysis, not shown here, indicated the items had a degree of shared variance that would normally be accepted as forming a single measure rather than multiple measures.

Figure A2.3 Reliability tests of items to form scalelets

Item	Corrected Item-Total Correlation	Cronbach Alpha	Cronbach's Alpha if Item Deleted	Items in scale?
Learning and teaching - Staff				
Staff are good at explaining things	0.71	0.81	0.70	Yes
Staff are enthusiastic about what they are teaching	0.66	0.81	0.75	Yes
I am happy with the support for my learning I receive from staff on my course	0.66	0.81	0.77	
Learning and teaching - Course				
The course is intellectually stimulating	0.72	0.83	0.74	Yes
The course has enhanced my academic ability	0.74	0.83	0.72	Yes
The learning materials provided on my course are useful	0.62	0.83	0.83	
Learning and teaching - Support				
Staff are good at explaining things	0.60	0.82	0.84	
There is sufficient contact time between staff and students to support effective learning	0.70	0.82	0.75	Yes
I am happy with the support for my learning I receive from staff on my course	0.79	0.82	0.64	Yes
Skills - Independent, creative, research				
My ability to communicate information effectively to diverse audiences has developed during my course	0.71	0.88	0.85	
As a result of the course I am more confident about independent learning	0.75	0.88	0.84	Yes
My confidence to be innovative or creative has developed during my course	0.77	0.88	0.83	Yes
My research skills have developed during my course	0.71	0.88	0.85	Yes
Skills – Career				
My ability to communicate information effectively to diverse audiences has developed during my course	0.65	0.84	0.83	
I have been encouraged to think about what skills I need to develop for my career	0.74	0.84	0.75	Yes
As a result of the course I feel better prepared for my future career	0.74	0.84	0.75	Yes

Appendix 3. Perceptions of course factors

Figure A3 Perceptions of course challenge and academic stimulation by relevant factors

	The course is intellectually stimulating			The course has enhanced my academic ability			My course has challenged me to produce my best work			n	95% Confidence Intel ±
	Agree	Neither	Disagree	Agree	Neither	Disagree	Agree	Neither	Disagree		
Sector	85.6%	9.5%	5.0%	85.9%	9.0%	5.1%	80.9%	12.6%	6.6%	71899	0.3%
Age											
25 or younger	82.4%	11.9%	5.7%	84.3%	10.2%	5.5%	80.1%	13.2%	6.7%	31373	0.4%
26-30 years old	83.9%	10.3%	5.8%	84.8%	9.4%	5.8%	78.6%	13.7%	7.7%	14541	0.6%
31-35 years old	88.1%	7.7%	4.2%	87.5%	8.1%	4.4%	81.2%	12.5%	6.2%	8228	0.8%
36-40 years old	90.7%	5.7%	3.6%	89.7%	6.3%	4.0%	83.4%	11.1%	5.5%	5707	0.8%
41-45 years old	92.3%	4.6%	3.2%	89.6%	6.7%	3.7%	84.4%	10.2%	5.5%	4521	0.9%
46-50 years old	92.7%	4.8%	2.5%	90.9%	6.0%	3.1%	85.5%	9.9%	4.6%	3488	1.0%
51-55 years old	91.0%	5.6%	3.5%	87.9%	8.2%	3.9%	83.8%	10.3%	5.9%	2021	1.4%
56 or older	93.7%	4.1%	2.2%	89.3%	7.8%	2.9%	86.1%	9.5%	4.5%	1571	1.5%
Motivation cluster											
To progress to a higher ... qualification	86.6%	9.0%	4.4%	88.9%	7.1%	4.0%	83.0%	11.3%	5.7%	11902	0.6%
For personal interest	87.5%	8.5%	4.0%	87.0%	8.5%	4.6%	81.5%	12.4%	6.1%	8183	0.8%
To change ... career	86.8%	9.0%	4.2%	86.9%	8.8%	4.3%	81.7%	12.2%	6.1%	9708	0.7%
To meet requirements of current job	86.5%	8.6%	4.9%	86.6%	8.2%	5.2%	81.1%	12.7%	6.2%	6759	0.9%
A requirement to enter a particular profession	85.5%	9.1%	5.3%	84.2%	9.6%	6.2%	80.7%	12.2%	7.1%	12909	0.6%
To progress in my current career path	84.1%	9.6%	6.2%	83.9%	9.7%	6.4%	79.2%	12.6%	8.2%	8062	0.8%
To improve my employment prospects	83.1%	11.3%	5.6%	84.7%	10.3%	5.0%	79.1%	14.2%	6.7%	14376	0.6%
Fluency in English at the start of the course											
Fluent in English	86.6%	8.3%	5.0%	86.1%	8.6%	5.3%	80.9%	12.2%	6.9%	60874	0.3%
Not fluent in English	79.5%	15.9%	4.5%	85.9%	10.6%	3.5%	81.2%	14.2%	4.7%	9052	0.8%
Country of origin											
Africa	92.3%	5.5%	2.2%	94.0%	4.3%	1.7%	87.6%	9.5%	3.0%	3526	0.9%
UK incl. Channel Is.	87.9%	7.1%	5.0%	85.7%	8.6%	5.7%	81.1%	11.6%	7.2%	37557	0.4%
Asia	82.2%	14.5%	3.3%	87.0%	10.3%	2.7%	84.0%	12.8%	3.2%	12508	0.6%
Middle East	79.5%	15.2%	5.2%	87.1%	8.2%	4.7%	80.3%	13.5%	6.3%	2069	1.6%
North America	84.3%	8.7%	6.9%	82.6%	9.6%	7.8%	76.7%	12.6%	10%	2799	1.4%
Other EU incl. Cyprus	81.6%	11.3%	7.1%	84.2%	9.9%	5.9%	76.0%	15.7%	8.2%	7187	0.9%
Qualification studying											
Masters	85.7%	9.6%	4.7%	86.9%	8.6%	4.5%	81.4%	12.4%	6.2%	59688	0.3%
Cert/Dip	84.5%	8.7%	6.9%	81.0%	11.0%	8.0%	77.8%	13.6%	8.6%	10855	0.7%

Figure A3 (continued) Perceptions of course challenge and academic stimulation

JACS Level 1 discipline	The course is intellectually stimulating			The course has enhanced my academic ability			My course has challenged me to produce my best work			n	95% Confidence interval ±
	Agree	Neither	Disagree	Agree	Neither	Disagree	Agree	Neither	Disagree		
Geographical Studies	89.1%	7.7%	3.2%	91.1%	5.9%	3.0%	85.0%	10.7%	4.4%	846	2.1%
Veterinary Sciences	93.7%	4.4%	2.0%	90.7%	5.9%	3.4%	80.5%	14.1%	5.4%	205	4.3%
History & Philosophy	92.0%	4.4%	3.6%	88.0%	7.5%	4.5%	83.1%	10.4%	6.5%	1934	1.5%
Languages	89.7%	7.2%	3.1%	87.7%	8.1%	4.2%	84.1%	10.3%	5.6%	2334	1.4%
allied to Medicine	89.3%	6.7%	3.9%	88.8%	7.2%	3.9%	82.9%	11.4%	5.7%	6223	0.8%
Medicine & Dentistry	88.8%	7.1%	4.1%	89.6%	6.4%	4.0%	82.3%	12.0%	5.7%	2443	1.3%
Physical Sciences	88.6%	7.6%	3.8%	89.0%	6.7%	4.3%	81.9%	11.7%	6.4%	1113	2.0%
Agriculture & related	87.5%	9.2%	3.3%	88.8%	6.8%	4.4%	79.8%	15.1%	5.1%	663	2.7%
Law	89.4%	6.0%	4.5%	86.8%	8.3%	4.9%	79.5%	12.9%	7.6%	2971	1.3%
Social studies	87.8%	8.2%	4.0%	86.5%	8.9%	4.6%	81.1%	12.6%	6.3%	5782	0.9%
Mathematical Sciences	87.0%	8.9%	4.1%	87.8%	7.5%	4.8%	79.9%	14.0%	6.2%	1005	2.2%
Biological Sciences	87.4%	7.4%	5.2%	86.0%	8.5%	5.5%	80.0%	12.7%	7.2%	5096	1.0%
Architecture, Building & Planning	86.3%	9.5%	4.3%	85.4%	9.5%	5.1%	81.3%	12.5%	6.2%	2214	1.5%
Business & Admin	81.7%	12.8%	5.4%	86.2%	9.5%	4.3%	80.7%	13.2%	6.1%	15656	0.6%
Computer Science	82.5%	11.9%	5.6%	85.7%	9.1%	5.2%	79.8%	12.8%	7.4%	2312	1.5%
Education	85.4%	8.5%	6.1%	82.7%	10.0%	7.2%	79.7%	12.5%	7.8%	9492	0.8%
Engineering & Tech	81.7%	12.7%	5.6%	85.3%	9.8%	4.9%	80.1%	13.8%	6.1%	4752	1.1%
Mass Communications & Documentation	83.3%	9.1%	7.6%	82.3%	10.5%	7.2%	80.5%	12.0%	7.4%	1615	1.9%
Creative Arts & Design	84.0%	9.7%	6.3%	81.7%	11.0%	7.3%	80.4%	11.5%	8.1%	2512	1.5%
Mode of study											
Full-time	82.8%	11.4%	5.8%	84.5%	9.9%	5.6%	79.8%	13.2%	7.0%	46899	0.3%
Part-time	90.8%	5.7%	3.5%	88.8%	7.1%	4.1%	82.9%	11.3%	5.8%	24713	0.4%
Highest level qualification at start of course											
No academic quals	91.2%	6.9%	1.9%	93.0%	5.7%	1.3%	86.9%	9.9%	3.2%	526	2.5%
Below undergraduate	89.9%	7.1%	3.0%	91.3%	6.3%	2.4%	86.5%	10.1%	3.4%	1840	1.4%
Undergraduate level	85.1%	9.9%	5.0%	86.1%	8.9%	5.0%	81.1%	12.5%	6.4%	52696	0.3%
Postgraduate level	86.3%	8.5%	5.2%	84.4%	9.8%	5.8%	79.2%	13.0%	7.8%	15007	0.6%
Time out of study prior to the start of the course											
Less than one year	83.1%	10.6%	6.3%	83.9%	9.8%	6.2%	79.1%	13.1%	7.7%	22965	0.5%
Between one and three years	84.9%	10.0%	5.1%	85.3%	9.4%	5.4%	80.4%	12.7%	6.9%	21474	0.5%
Between four and nine years	87.3%	8.6%	4.1%	87.4%	8.4%	4.2%	81.8%	12.5%	5.6%	15457	0.6%
Ten years or over	92.2%	5.4%	2.4%	90.6%	6.5%	2.9%	85.0%	10.7%	4.4%	8628	0.7%

Appendix 4. Differences for Masters and Cert/Dip

Figure A4 Differences between full-time Masters and full-time certificate or diploma PGTs

	Difference†	FT Masters	FT Cert/Dip	Midpoint ratio*
My research skills have developed during my course	14.7%	84.0%	69.3%	1.23
The workload on my course has been manageable	13.8%	72.2%	58.4%	0.78
The course is well organised and is running smoothly	9.0%	73.3%	64.3%	0.87
Any changes ... have been communicated effectively	8.0%	78.5%	70.5%	0.64
The course has enhanced my academic ability	7.3%	85.5%	78.2%	0.81
... I am more confident about independent learning	7.1%	82.6%	75.5%	1.14
I am aware of how to access the support services ...	4.5%	81.3%	76.8%	0.81
The timetable fits well with my other commitments	4.0%	79.0%	75.0%	0.61
My course has challenged me to produce my best work	3.0%	80.3%	77.3%	0.88
I have been able to access general IT resources ...	2.8%	88.6%	85.8%	0.46
... be involved in decisions about how my course is run	2.5%	63.8%	61.3%	1.24
I have been able to access subject specific resources ...	2.3%	85.7%	83.4%	0.67
... opportunities to give feedback on my experience	2.2%	74.7%	72.5%	0.96
The library resources and services are good enough ...	1.5%	85.0%	83.5%	0.48
The learning materials provided on my course are useful	1.4%	80.9%	79.5%	0.67
The course is intellectually stimulating	0.5%	82.8%	82.3%	0.59
Staff are good at explaining things	0.4%	87.4%	87.0%	0.34
My confidence to be innovative or creative ...	0.2%	74.0%	73.8%	1.06
Overall, I am satisfied with the quality of the course	0.2%	81.1%	80.9%	0.47
I am happy with the support for my learning I receive ...	-0.1%	75.5%	75.6%	0.75
I was given appropriate guidance and support ...	-0.2%	76.4%	76.6%	0.74
My ability to communicate information effectively ...	-1.3%	76.4%	77.7%	1.05
Feedback on my work (written or oral) has been useful	-2.1%	70.9%	73.0%	0.83
sufficient contact time ... to support effective learning	-2.1%	68.8%	70.9%	0.75
Staff are enthusiastic about what they are teaching	-3.7%	88.3%	92.0%	0.39
I am encouraged to ask questions or make contributions	-4.4%	85.7%	90.1%	0.49
criteria used in marking have been made clear in advance	-5.5%	72.9%	78.4%	0.56
Assessment arrangements and marking have been fair	-5.6%	69.1%	74.7%	0.88
... opportunities to discuss my work with other students	-7.8%	77.6%	85.4%	0.58
Feedback on my work has been prompt	-8.2%	63.8%	72.0%	0.75
... I feel better prepared for my future career	-10.1%	75.7%	85.8%	0.68
... think about what skills I need to develop for my career	-14.2%	74.6%	88.8%	0.52

†all differences are significant. Given relatively stable response across items, difference is a reasonable guide to effect size and importance.

*The midpoint ratio is the ratio between 'Neither' responses for the item and the average across the nearest positive item and all negative items, a high value indicating an excess of midpoint responses and non-applicability of the item for a relatively high proportion of respondents.

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