



## Cognitive Review of the Postgraduate Research Experience Survey.

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### Project Team

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## I. Executive summary

PRES is run by the Higher Education Academy in conjunction with HEIs in the UK. The HEA provides a national online survey template, sets the national survey window, convenes the PRES Advisory Group, conducts the national analysis and reporting, and provides support to institutions on both survey delivery and its use for enhancement.

In 2010 Chris Park produced a quantitative review the PRES results. The analysis of reliability and validity of the items provided the initial thrust for a systematic revision and update of the wording of the questions asked to make them more relevant to the current trends and priorities in HE.

This project was set to thoroughly test the interpretation of questions asked in the latest version of PRES and to 'field-test' new items emerged from the consultation with Vitae and Funding Research Councils, with particular attention to the 'Early career research framework'.

The process led to a number of recommendations for the new version of the survey to be launched in 2013.

To facilitate the research process and enhance the value of the recommendations, the lead research team based in Glasgow recruited 21 PGR students across the UK as *research partners*. This was to 1) directly engage PG research students as partner in the research and 2) reach PGRs across the spectrum who might not have been readily available to the researchers.

The questions of the PRES were tested using cognitive interviews. Although the method is grounded within the framework of cognitive psychology since the 1950s, the technique used for testing questionnaires has been refined by Willis (1999). The technique is based primarily on probing participants' understanding of the questions. Each PGR collaborator carried out between 5 and 10 interviews and contributed to the phased revision of the items. The interaction in the research team was conducted entirely from remote using a variety of software tools to support the work and exchanges between collaborators. PGR were engaged in most of the research stages with the exclusion of the setting of the parameters for the research bid.

The outcomes of this process led to three key recommendations below and the drafting of the new PRES 2013. A thorough critical reflection on the process provided an opportunity to identify the strengths and weaknesses of the methods used.

### 1.1 Key Recommendations

- The structure of the survey should be modified to make items more relevant to specific sections (identified by specific headers); this was also supported by the earlier quantitative reliability tests. A follow-up reliability analysis should be performed before next year.

- A number of items were flagged for deletion; some questions were newly added or re-worded.
- Specific recommendations for the interpretation of the results has been provided.

## 2. Background

The 'Browne review' of funding in HE (Browne, 2010) positioned the 'student experience' as an essential component of students 'public information needs' that are central to the 'increase of student choice'. This centrality of student experience is reflected in the discourse of the Quality Assurance agencies in the UK and the Higher Education Academy and it has been promoted in a number of initiatives directed and/or supported by these agencies.

Nevertheless, according to Sabri "the sacralisation of the student experience has in fact obscured the educational form and function of experience for an ethnically and socio-economically highly diverse body of students". (Sabri 2011:658)

Student experience surveys, especially at national level, like the NSS, the PTES and PRES are an attempt to provide comprehensive representations of the nature of students' engagement with HE and institutions in particular. However, these are fundamentally biased by their inability to provide insights into *the subjective value of the learning experience*.

From the Quality Assurance (QA) point of view, these surveys provide useful metrics to depict the overall experience and characterise what students' perception might be of a particular course or programme of study, however it is very difficult to expose the reflection and thinking processes behind the ratings of statements and there is evidence that subjective interpretations of the questions are not as uniform as the quantitative data may suggest. This means that a certain caution should be taken when interpreting the quantitative outcomes of these surveys.

There are a number of examples in the literature showing how students interpret the questions asked in well known student experience surveys (i.e Ouimet et al. 2004, Porter 2011). There is also evidence that one way to understand how participants interpret the questions is the use of verbal reports, and cognitive interviews in particular (Campanelli et al. 1991, Presser and Blair 1994, Willis, DeMaio and Harris-Kojetin, 1999)

The overarching aim of this project was to carry out an analysis of items used in the PRES in order to validate questions and revise the instrument to ensure the relevance of the questions asked.

The focus has been to determine 1) how students interpret the items and response options, 2) if the items are clearly worded and specific enough to produce reliable and valid results, and 3) if the items and response categories accurately represent students' behaviours and perceptions.



Ultimately, the research team was expected to provide a set of recommendations founded on empirical evidence to advise the HEA about changes in the release of the survey in 2013.

To achieve the set goals the project team started from a review of the quantitative analysis already conducted by Paul Bennett (after the 2010 published document by Chris Park) and iteratively identified core themes and issues to address in the interviews and through the survey.

## 2.1 The PRES instrument

The UK-wide [Postgraduate Research Experience Survey \(PRES\)](#) is made available by the Higher Education Academy to all Higher Education Institutions (HEIs) with postgraduate researchers.

PRES is designed to help institutions enhance the quality of research postgraduate degree provision by collecting feedback from current postgraduate researchers in a systematic and user-friendly way. Individual Institutions are responsible for running the survey and analysis the data informing their enhancement strategies, however the HEA provides an annual report which includes 6 benchmarking clusters allowing Institutions to place themselves in the wider UK landscape.

PRES was piloted in 2006 and has been running nationwide since 2007 with an increasing number of universities joining year on year (over 100 took part in 2012); this provides a solid foundation for a systematic evaluation of the instrument.

The questions used in the version administered to participants in 2011 are included in the [PRES report](#). PRES currently contains 61 items, comprising:

1. Eight main experience scales with a total of 39 items using a Likert scale. These cover:
  - Supervision (6 items)
  - Skills development (6 items)
  - Infrastructure (6 items)
  - Intellectual climate (5 items)
  - Goals and standards (4 items)
  - Thesis examination (5 items, including filter)
  - Professional development and career (3 items)
  - Roles and responsibilities (4 items)
2. One scale on the importance of key aspects of the degree programme (6 items each with a free text comment box)
3. Four separate questions examining PGR students' experience of teaching, including one free text item (4 items)
4. One scale on personal factors (3 items)
5. One scale on experience relative to expectations (7 items)
6. One question on estimated completion (1 item)
7. One general free text comments box (1 item)



Following a detailed quantitative review of the PRES and a wide consultation with HEIs it was apparent that some questions could be misinterpreted and were not relevant to all students. Furthermore, there has been a growing drive in the HE sector to expand the tool to include specific questions relevant to the [Research development framework in Vitae](#) which many universities are using to provide opportunities for developing their PGRs and also to satisfy the the [UK Quality Code for Higher Education – Chapter B11 Research Degrees](#). PRES has the potential to help institutions benchmark against these.

The consultation process and review of the quantitative results from the past few years has led the HEA to provide an initial revision of the PRES<sup>1</sup> which provided the starting point for this project. The old and new questions suggested for revision were the starting point of the evaluation and testing via cognitive interviews.

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<sup>1</sup> PRES 2011 and 2013 national reports with the questionnaires and a comparison table  
PRES 2013: <https://www.heacademy.ac.uk/postgraduate-research-experience-survey-pres-2013>  
PRES 2011: [https://www.heacademy.ac.uk/resources/detail/postgraduate/PRES\\_2011\\_report](https://www.heacademy.ac.uk/resources/detail/postgraduate/PRES_2011_report)



### 3. Research Methodology

In this section we highlight two key aspects of the methodology: 1) the selection of target Institutions with the recruitment of research collaborators and recruitment of participants, and 2) the choice of methodology for interviews covering the training and technology supporting the process.

#### 3.1 Sampling and recruitment

A key challenge of the project was the very short time window to carry out the project. This made it essential to devise suitable methods to rapidly assess of the context and the potential population to be considered for the interviews.

Before the project started it was acknowledged that the leading research team at any Institution would have only been able to provide a somewhat skewed representation of the student population in the UK because of the composition of the students' cohort at their university. Of course, many Universities share a similar population of students, but this might not be a comprehensive sampling. Access to students at different universities is normally very limited and presents a number of potential hurdles.

The way in which we solved the problem was to recruit existing PGRs as paid research collaborators from a pre-selected sample of UK institutions. PGRs are in a unique position: they have access to a personal network of PGR students (as well as friends of friends) and have an understanding of the local context and working of their university. This allowed the project team to have a shortcut into the selected universities which might have not been otherwise possible without a laborious communication trail and relationship building with local contacts.

The first step was to identify a subset of universities aimed to widen the spectrum of participation and allow for the recruitment of PGR contributors.

There were 4 key criteria informing the rationale for the selection of HE institutions:

- Physical/geographical location of the university in the UK
- Type of institutions (research intensive vs teaching oriented and a spread from the HEA benchmarking groups)
- Typology of cohorts which includes *demographic composition* (including diverse ethnic groups, languages) and *nature of courses* (FT vs PT, on-campus vs distance, single stream or joint degrees [Note that the criteria are based on official HESA returns])
- Position in the league tables (in terms of satisfaction, keeping into account subject area where possible)



The original aim was to identify a shortlist of about 20 candidate institutions for the interviews.

The source data included three main sources:

- **HESA returns from 2006-11** (total number of students, percentages of geographic origins, FT/PT status and 5-years trend of changes over time – i.e. increase/decrease of UK vs EU or overseas students)
- **HEA grouping/benchmarking data** which included eight grouping clusters (Russell Group, 1994 Group, University Alliance, million+ , Pre-92, Post-92, Small & Specialist and the OU) as well as the percentages from 2010-11.
- **PRES overall satisfaction scores and rankings**

This exercise generated a list of 32 universities which we decided to target for the recruitment process.

At this point we contacted the designated PRES Officers in order to distribute the advert to recruit paid PGR collaborators as Research Assistants on the project. Where we found that no applications were forthcoming from a particular university in the first week after contacting the PRES officers, we also attempted to contact student union representatives in order to circulate the vacancies.

The online application system was open over a 3 weeks period and we have received close to 500 applications from 26 different universities for the advertised.

The level and quality of candidates was outstanding, making the selection process quite difficult, however we adopted a systematic approach in which each applicant was evaluated by at least two assessors in order to provide a scoring on the various criteria.

An initial list of candidates were selected based on the essential and desirable criteria first and then ranked by institutions: this ensured that we allocated RAs fairly and prioritised merit and experience over the location.

After RAs were appointed we organised a set of virtual video-conference meeting using Adobe Connect. Because of the logistics each session was repeated with two groups in the day and the meetings were also recorded to ensure that people could go back to the recorded sessions and get acquainted with the others researchers and issues that were raised asynchronously after each session.

Each RA also received a LiveScribe Echo pen; this is a digital recorder that allows to synchronise hand-written notes as well as providing opportunities to tag and navigates notes for a more effective transcription of the interviews.





After an initial 'meet & greet' session and a specific training session, RAs were asked to conduct a single pilot interview to get acquainted with the process of conducting cognitive interviews. Although it was not expected that the method would require specific training, we recognised that most of the PGRs contributing to the project might have not been familiar with cognitive interviewing. The feedback provided in the first meeting allowed us to raise some preliminary issues and promptly respond to the RAs perceived difficulties. We also encouraged RAs to contribute to the editing of the web resources and the guidance material. This was done specifically to promote their sense of ownership of the project.

In the first step, the student enquirers interviewed each other: this served as practical training to carry out a cognitive interview and to gather some feedback from the process. This also provided some initial material to enrich the discussion in the research team.

In the second stage each interviewer was tasked to conduct interviews with 9 peers from the different disciplinary areas (Arts, Social Sciences, Science & Engineering and MVLS).

The expectation was that each interview was about 40 minutes long and that the RAs had an hour for the transcription of the material.

The plan for interviews was phased over 3 main revision cycles. Slightly different sets of questions were given to RAs in order to keep the interviews down to a manageable length and provide a quasi-experimental assignment of the question sets. This allowed to review the entire questionnaire over each cycle by dividing the sections/questions between the different interviews, but ensuring that each interviewer could get an overall view of the instrument.

The idea was to collect data from the first cycle and quickly report back to the HEA PRES advisory group, which was encouraged to actively contribute in the process and informed/directed the revision of items for the following cycles of interviews. In order to accommodate 1) the speed of RAs in conducting interviews, 2) the continuous feedback loop with the HEA and advisory group and 3) the time constraints required to overview the running of the project and the provision of adequate feedback and support for RAs, the project was ran over 4 cycles of revisions, with the last one focusing on testing specific wordings rather than full sets.

The whole process was monitored using shared resources in Google Documents and by sharing the interview material with the lead team. A 'control document' was also created in order to encourage the immediate sharing of comments and reactions after the interviews. These impressions were also discussed further in the review meetings and constituted the primary material to provide a rapid feedback to the HEA at the various stages.

The recorded interviews and transcripts were used to systematically corroborate the statements in the control document and in the detailed phase of analysis at the end of the data collection.





## 3.2 Cognitive Interviews

According to Conrad and colleagues (1999), “A survey question is a kind of instruction. Respondents are, in effect, instructed to carry out a task to do whatever mental work is necessary to provide an answer.” (Conrad et al 1999: p1) In turn, this means that respondents can fail in responding to the instruction in a number of ways, which include misunderstanding what they have been asked to do, being unable to respond, or being unable to fit their answer into the options provided.

Over the past couple of decades a method called *cognitive interview* has emerged as a possible solution to proof the questions asked in surveys as a pre-test method. It is important to differentiate this from the cognitive interview used mostly in forensic psychology to aid recall of an event or the pure think-aloud method often used in human-computer interaction for user-testing and cognitive walkthroughs.

The cognitive interview intended here is a method that uses of *think aloud techniques* (see Willis 1999). Respondents are asked to give a verbal account of their thinking as they answer (concurrent) or immediately after they answer (retrospective) the survey question. This produces a “verbal protocol” of the way in which participants tackle the question. The theory of verbal protocols is considered the backbone of the cognitive interviewing technique (e.g. Ericson and Simon, 1980, Lessler, Tourangeau and Salter, 1989).

However, the method has evolved to include semi-structured procedures and it has become common practice for cognitive interviewers to *probe* for additional evidence beyond what respondents report spontaneously (Willis 2005). In this stage the interviewer ask the participants to elaborate on their answer or explores in an explicit way the reasons leading to a particular answer.

Based on evidence of problems, the problematic questions can be re-worded so that they are less likely to cause these difficulties when presented in the actual survey.

There are two key criticisms toward cognitive interviewing: 1) that people can only report what they are aware of and 2) that the act of thinking aloud changes one’s thinking.

The first problem has been demonstrated in detail during the 80s: many researchers exploring problem solving and recall with cognitive interviews showed that participants are not aware of all the steps in the solution of a problem, but that they are aware of the major steps.

Furthermore it has been shown that the think-aloud technique is useful in reconstructing processes or events by aiding recall. For these reasons, when a participant is asked to tap into their autobiographical memory or refer to frequencies of patterns of behaviours, cognitive interviews are quite good in identifying potential problems.

The second criticism is more complex. Ericsson and Simon (1993) argued that verbal protocols are not 'reactive' and indicated that although thinking aloud may slow down the primary task it does not



normally change the process. The claim was supported by a long list of studies showing that people perform the assigned, primary task equally well whether or not they provide verbal reports. In the 1990s researchers like Russo et al (1989) and Schooler et al (1991, 1993) demonstrated that for certain tasks, the think-aloud technique affected the performance reducing the value of the outcomes and therefore providing evidence of the detriment of the method in certain circumstances.

To improve the objectivity of interviews, we adopted an hybrid method which starts with the think-aloud method, but we have also provided a more systematic framework for the interviewers to probe certain aspects and effectively provide a set of heuristics to use certain probe questions based on the answers. This was partially modified from Willis 1999, 2005)



## 4. Results

In Appendix 2 it is possible to see the full list of the questions tested. A detailed analysis of the interviews is ongoing and will be presented later in the year.

The 21 PGR collaborators conducted a total of **146 interviews** (an average of 7 each) over a 10 weeks period, totalling about **150 hours of interviews**. This would have been a massive undertaking for a traditional research project not using student collaborators and difficult to attain over a 12 weeks period.

In each cycle/phase of the research there were 37 interviews on average, with the first cycle (testing the questions of the old PRES with 59 interviews). The table below summarises the number of interviews conducted at each university in each cycle.

A total of 107 unique questions (and variants) were tested over the three cycles of interviews.

Institution	1	2	3	4	Total
Liverpool John Moore University	3				3
Loughborough University	3	3	4		10
Open University	5	2	2		9
Queen's University Belfast	6	3	1	1	11
University of Bath	3	2	2	2	9
University of Birmingham	3	2	2	1	8
University of Central Lancashire	3	2	2	2	9
University of Edinburgh	4	1	4	2	11
University of Glasgow	3	2	2	2	9
University of Kent	1				1
University of Leeds	6	3	2	1	12
University of Leicester	3	2	2	2	9
University of Manchester	3	2	2	2	9
University of Portsmouth	3	2	2	2	9
University of Sheffield	7	4	4	3	18
University of Strathclyde	3	2	2	2	9
<b>Total</b>	<b>59</b>	<b>32</b>	<b>33</b>	<b>22</b>	<b>146</b>

Participants were recruited across the spectrum and the tables below show distributions resembling the HESA returns for the sector. Typical trends were also observed in the distribution of gender and ethnicity which mirrors the distribution of students in the UK HE.

Subject Area	tot	F	M
Arts & Humanities	9.6%	64.3%	35.7%
Medicine & Life Sciences	12.3%	77.8%	22.2%
Social Sciences	45.9%	61.2%	38.8%
STEM	32.2%	38.3%	61.7%
<b>Total</b>	<b>146</b>	<b>82</b>	<b>64</b>



Ethnicity	%
Asian/Asian British - Bangladeshi	0.7%
Asian/Asian British - Indian	6.2%
Asian/Asian British - Pakistani	2.1%
Black or Black British - African	4.1%
Chinese	4.1%
Mixed - White & Black Caribbean	0.7%
Other Asian Background	10.3%
Other Black Background	1.4%
Other ethnic background	5.5%
Other White Background	13.7%
White - British	47.9%
White - Irish	2.7%
Black or Black British - Caribbean	0.7%
<b>Total</b>	<b>146</b>

## 4.1 Summary of the work done on the interviews

All interviews were transcribed by the RA contributors. This was done in order to ensure a better accuracy. A template was provided to facilitate some automatic coding and analysis using Nvivo.

The basic rationale was that for each question we ‘tagged’ potential problems by dynamically updating a control document that all collaborators could access. The problems were identified based on the interpretation of the questions that participants presented in the interviews.

We identified a number of reasons why a question could be (mis)interpreted by the students and therefore become problematic. Here we refer to a number of examples to illustrate some common patterns.

- There is more than one aspect to the question being asked leading to respondents being unsure on how to answer the question:

“Demonstrating a *theoretical* (1) and *practical* (2) understanding of my subject area and its *wider research context* (3)”

“Effectively *planning* (1), *managing* (2) and *delivering work* (3) in good time”

- An aspect of a question is placed after a more easily understood term leading to the question being answered mainly on this term:

“Applying guidelines relating to the ethical or *environmentally sustainable* conduct of research”



“My understanding of research practices that are respectful of the intellectual and *personal rights* of others has developed during my programme”

- An aspect of the question has many interpretations leading to non consistent answers:

“The *research environment* in my department or faculty stimulates my work”

“Creating a personal training or *development plan*”

- The key aspect of a question proves difficult to understand:

“My department provides opportunities for me to become involved in the *broader research culture*”

“I am active in my department's *research community*”

- The question was not relevant to the majority of respondents:

“Communicating your research for the purpose of *informing policy.*”

“My ability to *work with others and influence teamwork* has developed during my programme”

- A part of the question is seen as redundant as it is covered by a previous part:

“I have adequate access to the specialist resources and facilities necessary for my research”

## 5. Evaluation

As an action-research based study, the project team sought the collaboration of PGR student collaborators.

Empowering PGR students to contribute in the process of evaluation of the PRES was one of the key priorities of the project. The wider engagement afforded by the RAs, provided a better understanding of the (mis)interpretation of certain questions because of a better appreciation of their own contexts and their institutional practices.

The value of students contributing into the research process afforded to explore social networks that were not within the reach of the lead researchers. Furthermore, unlike the academics in the project team, the student's viewpoints were not biased by existing preconceptions or implicit institutional agendas. The process allowed to refine the questions asked and to scope the interview themes in a sort of pre-testing of the cognitive interviews.

Each one of the postgraduate students selected had a considerable research experience and a keen interest for the topic: this provided an excellent opportunity for them to contribute to all aspects of the project and create a constructive space to further develop their research skills.

Although RAs were very supportive and positive about their participation and the opportunity given, the project was not a simple process and at times required a considerable effort. In a separate paper (in preparation), we will explore in more detail the problems emerged in the process, which include more specific selection criteria, the definition of training protocols, a closer monitoring of the process and the evaluation of the experience of the PGRs. This will be useful in order to provide a re-usable model for students' contribution to research of similar sort.

As well as the interaction from the meetings, we have data concerning their application forms structured to identify key criteria for selection), a round of peer feedback on the quality of interviews and a final evaluation feedback. All these sources will inform the analysis of the work done.



## Appendix 1 – Recruitment and appointment of research collaborators

This is the list of PG research collaborators who contributed to this project.

Institution/Organization	First Name(s)	Surname	subject
Liverpool John Moore University	Carl	Wilkinson	Education
Loughborough University	Faye	Didymus	Sport Psychology
Open University	Nadia	Marzocco	Education
Open University	Kate	Sullivan	International development
Queen's University Belfast	ibidunni Francisca	Idowu-Eberendu	Social policy
Queen's University Belfast	Dermot Peter	Lockhart	Law
University of Bath	Vinit	Pereira	Biology
University of Birmingham	Raquel	Da Silva	Social studies
University of Central Lancashire	Deborah	Crook	Social care
University of Edinburgh	Vicki	Trowler	Education
University of Edinburgh	Konstantinos	Tsanis	Business School
University of Glasgow	Soumyadeb	Chowdhury	Computing science
University of Kent	Thomas	Woodward	Cog Neuroscience
University of Leeds	Nketti	Mason	International development
University of Leeds	Helen	Morris	Education
University of Leicester	Marisol	Elizalde Monjardin	Psyc research
University of Manchester	Ugochukwu Callistus	Orazulike	Law
University of Portsmouth	Christopher Ian	Huggins	EU policy
University of Sheffield	Veronica	Cano	Law
University of Sheffield	Lakshmi Priya	Rajendran	Architecture
University of Strathclyde	Russell	Matthews	Business





## Appendix 2 – An overview of the themes from the questions

This appendix contains a full list of important issues/problem emerging from the interviews ‘condensed’ from all interviewers. Collaborators (including PGR interviewers) have contributed with comments (colour-coded).

**The first section of the document refers to the sections of the PRES, the rating scales and other general issues with the survey.**

**The second section of the document lists all the questions in the survey. here you should highlight specific issues with the wording or any other issue with the understanding of the questions.**

### General problems

The interviews which I have conducted already, did not show that interviewees had any form of problem with the rating scale. in my understanding, my interviewees answered rating questions honestly. So far, I have not identified any methodological problem in regards to: rating some questions; and leaving others, ‘open ended’.

is the rating change important? should all questions be phrased on a rating scale?  
should we add optional text-boxes to define when a n/a answer is provided?

General comment throughout the PRES: some of my participants have highlighted the language used to describe the “research degree programme” and have suggested that this could be consistent throughout to help understanding. To expand here briefly, at times (e.g., under Knowledge and Intellectual Abilities) this is referred to as “research degree programme” and at other times (e.g., Development Opportunities) it is referred to as “research programme”.

A common theme that has occurred so far is that some questions appear to be double-barreled. I have highlighted the specific examples that have been raised so far in my comments beneath each of the individual questions below. The emerging theme seems to be that participants may be inclined to respond with a neutral answer (e.g., “3” on the five point Likert-type scale) to questions that are asking more than one question at once. My understanding of their transcript is that this may occur because the participants may find it difficult to give an accurate answer that encompassed each of the points being addressed.

RE: Rating scale. A couple of my participants said that it would be helpful to have each point on the rating scale defined. So, instead of having definitions for one and five and leaving the other points on the scale (two, three, and four) open to interpretation, they highlighted that it would be easier to answer the questions if a definition for each point was provided.

RE: Optional text boxes to define when n/a answer is provided. One of my participants said that it would be helpful to have text boxes for each question, even if n/a was not the chosen answer. For example, some of the questions relating to the participant’s supervisor/s were difficult to answer because the participant has two very different supervisors. This led onto a brief discussion about text boxes and the participant said that she would be unlikely to complete an “any other information” box at the end of a questionnaire (this point has



been raised by some of my other participants as well), but would be more likely to make a note of some specific points as she goes through the questionnaire if a box was provided for each question..

Following on from this comment two of my participants felt the term “research degree programme” was rather narrow when the questionnaire seemed to be asking questions about wider experience such as teaching, career development, etc. Saying “research degree programme” makes it sound like you only want them to refer to the actual research degree rather than the wider experience of being a research degree student.

I also have observed the same pattern concerning repetition of concepts in questions: In some questions which I highlight later participants tend to be disappointed from the repetition of similar concepts. As the interview goes on, they express their scepticism more open, and the end up putting neutral grades or simple responding “Didn’t I answer that earlier”?

Another theme seems to be related with the use of definitions ie questions 6,7,8: Participants seems to be discouraged from such kinds of questions as they have to ‘think’ more, and they end up saying that they ‘don’t see the points for such kinds of questions and definitions’.

Last but not least there seems to be a large difference in the understanding of the questionnaire between UK and international researchers. Those coming from the UK tend to understand it faster and better, but those with an international background seem to get easily tired/discouraged with it.

## Section 1 - General issues with the survey and with the different sections of the PRES

So far, I have only used ‘interview set 2 questions’. The only technical problem which I identified was kind of logical. First year or new PhDs are likely going to find some questions inapplicable compared to ‘older’ PhDs. However, I explain to participants that they need not worry about the technical problem but instead can try as much as possible to apply those questions to their short experiences. When this is impossible, I simply noted: N/A. I cannot think of a solution to this technical problem or a better way to get around it - without marginalising some PhDs, who may have stories to tell concerning their short range experiences.

Problems around experience were not limited to just how long the participants had been on their course, they were also around whether their skill development and experience was coming from the university or from current or past work or study. Where other influences had more of an impact on their development it was not necessarily because the course would not have done this, so they did not want to mark the university down by saying that they had not developed as a result of the course. However in some instances it was clear the university was not offering any further development to improve already good skills and in this case they would want to mark the university down.

There was a general feeling (in some cases expressed after the interviews) that the survey treats working toward a postgraduate research degree as a training course, just another step up from a degree, with emphasis on this and not their main reason to pursue a PhD which is to produce some original research that makes a contribution to society.



I have so far interviewed 3 researchers, 1 with 4 years experience and 2 in their first year. I do not recommend this survey to researchers who are currently in their first year, because some of the questions are totally irrelevant to them and they do not have sufficient knowledge/experience to answer the rest.

## 1. Supervision

One participant noted that he had changed his supervisor half way through his PhD. Therefore, while he didn't answer Set 1 of the PRES, which includes the "Supervision" section, he suggested that he would find it difficult to answer the questions as he has had two different experiences. While it may not be commonplace to change supervisors, it may happen relatively often and, therefore, perhaps it would be helpful to include a question that asks whether the participant has had the same supervisor throughout their research degree programme so far?

One participant highlighted a few questions where she believed the wording was ambiguous. Please see specific comments below in relation to each question for more information.

Two participants noted they had a team of three supervisors (a primary supervisor and two others). They felt it was unclear if these sets of questions were asking about their primary supervisor or their supervisory team as a whole. Most of the research degree student's contact is with their primary supervisor, where they only have contact with their second and third supervisors infrequently. One participant noted that if they could they would rate each supervisor differently for each of these questions. Another participant said when they thought about these questions they first thought of their primary supervisor.

-Some participants here mentioned that they wanted to clearly evaluate differently their first and second supervisors, as they seem to be different in the help they provide.

Differences in type of support were outlined and some felt it was difficult to evaluate them as a team where one was perhaps really good and others were lacking in some way. Students have a Research degree tutor as well as 3 supervisors and they may also bring in others from outside the school or university if further expertise is needed. Thus the question may need to be more specific as to who it is asking about or whether it means the whole team.

I would question whether this section was too personal and may not accomplish what it is trying to do, for instance personality may influence some answers

1a) 'Skills and subject knowledge' - All fine

1b) 'Available when I need them' - all fine

1c) 'Provide Feedback on my progress' - All fine

1d) 'Id my development needs as a researcher' - Development needs form; adding to a skill set; only gets advice on thesis rather than own skills and development needs



1e) 'Good advice on the range of career opportunities that are available to me- To early to tell not at that point in PHD too specific assumes they have; No career ops spoken about with supervisor; No not within role of supervisor! can only advise on academia

## 2. Research environment

In statement 2a - participants may like to know what exactly the broader research culture means as in statement 2d - we are asking them about research seminars. the participants think that the seminars they attend help them to be a part of a broader research culture. Hence 2a may be made more specific with terms relating to broader research culture.

In 2b and 2c the participants again have similar answers as they think that talking to fellow research students in seminars as well as in communal areas stimulates their work. Hence the two questions can be merged to a same question.

The main thing here in 2c is whether it is interdisciplinary or intra. This may be made more clear.

question 2c raised issue of what was a discussion

2a) 'Broader research culture' - Take part in research out with my area; Other research opportunities; Prof development courses, seminar invites, involvement in staff meetings but what is meant by 'culture'; PHD seminars-talking to other PHD students in different areas formally and informally; Don't get what 'Broader Research Culture'- talks about opportunities of getting PHD; 'Broader Research Culture'- Pauses confused going to conferences?; National and international research outwith uny; Interaction with other researchers but what is interaction?

2b) 'Research Environment In Work Stimulates' My Work - Talking with other PHD's informally; Extra workshops and seminars; Environment = office Space? -Talking to PHDs in office, social relations -environment just what does this mean?; In my own office, lab etc discipline specific; Office- hot desking want PHDS to talk to each other but I need a quiet place to work!; Informal conversations with other PHDs and Faculty members; informal chats with other PHDs; Doing quantitative work- no one else to turn to- no other researchers

2c) 'Frequent Opportunities to discuss my work with other research students'- Yes talk to other PHDd informally; not met other students; Informal with office, school seminars etc; Informally with other PHDs; Hot desking informal discussion; informal chats with other PHDs; Informal talks with other PHDs; Informal with other researchers but its not easy as works different

2d) 'My dept provides a good research seminar Prog- Internal presentations of PHD research; No programme; Dept? confusing Group or School?; End of year seminars organised to explain research internally; Not relevant to my work as seminars are about qualitative data and contextualised in uk

## 3. Resources and facilities



There appears to be a lot of variability in participants' answers to this question. Specifically, some departments have a hot spotting policy and there are plenty of facilities, whereas other departments have a hot spotting policy but there are not enough facilities, and in other departments each student has their own desk and their own computer. This raised the question of whether an open ended box to give respondents the option to expand on their answers would be helpful here.

The terms "adequate" and "suitable" used in these questions were felt to be very subjective and participants were unsure how to assess adequacy or suitability. One defined it as meeting their own needs but this would vary from respondent to respondent as everyone's needs are different.

felt not appropriate for online student

There has been a lot of discussion around this question more specifically what is meant by workspace and who is actually providing that facility. Many students are distant from the university but they are not classed as distance or on-line learners. They may be choosing to work at home and provide their own workspace and facilities and these could be very good. However when they come into the university the facilities may be very limited. Should the question therefore ask whether the university provides a suitable workspace (whatever suitable means)? If the wording is going to be subjective such as adequate then it needs qualifying with a question about what the student regards as adequate. Or it needs to be more specific, e.g. do you have an office of your own, hot desk or shared facility - in other words ask if they have whatever the HEA regards as an adequate facility and then whether institutions go beyond this. A couple of participants are also lecturers and have a workspace because of this and are offered no further facility, however they do not regard these spaces as suitable for working on a research project (i.e. because they are in an office with 4 others). Perhaps the survey should be asking what resources and facilities students believe they need in order to do their work properly?

Also should resources and facilities be linked to research environment - lack of space to work actually in our own schools and spaces to meet with other students doing relevant research in those schools is a big problem for our university and it is becoming apparent that this is because it hinders a creative research environment.

There needs to be more information as to what is meant by resources and facilities, for instance if there was a list of good resources and facilities then the answers would be comparable.

3a) 'suitable working space'- I have a suitable working space, working space any provided can work at home which is adequate, commuting students only?; Fine heating sorted out; Shared space, fine to meet other but crowded room and noisy - is a problem

3b) 'Computing resources and facilities'- laptop given; Only talks about computing facilities; use own laptop not given

3c) 'Library facilities'- All fine

3d) 'Specialist resources and facilities' -Can't think of any specialist resources needed; literature student not relevant to them; specialist resources doesn't apply to them



## 4. Progress and assessment

4a: No issues. Clear to most

4b: No issues. But assessment procedure made clear by whom ( Department / College / university). people are issued a book with guidelines before the start of the degree explaining each and everything. Overall its a Yes.

4c: No issues.

4a) 'Requirements and Deadlines '- given booklet with info; Given in course info; End of yr Panels VIVA informal supervisor deadlines etc; End of year review; Internal deadlines 1st/2nd year reviews; Yearly meetings with dept; Conversations with supervisors; Deadlines known and what the formal monitoring will be

4b) 'Final Assessment procedures are clear '- Viva; talks about viva; Viva and thesis write up; Viva and thesis assessment as end of PHD; Thesis procedure/VIVA knows what have to do; Viva procedures (who and how). Corrections; No documents for assessment procedure :( ; Thesis of 8000 words only in 1st year though!

4c) 'Required Standard for thesis'- include Null findings/experimental chapters; Given info by uny on this; VIVA content of thesis; Must be publishable standard-quality of thesis; What font to be used, style, way thesis should loo, is it more about academic standards or style or both?; I look at previous thesis, speak to supervisor about it nearer time; Previous thesis & anecdotal info; Only in 1st year so can't say 8000 words?

## 5. Roles and responsibilities

5b My institution values and responds to feedback from research degree Students - there may well be a distinction here between what is regarded as valuing feedback and whose responsibility it is to either ask for it or give it in the first place. One participant would score this highly because lots of questionnaires come round but that is not the same as being able to raise an issue oneself or seeing anything done in response. We definitely need to ask how students know the university is responding to feedback as assuming it happens is not the same as knowing it happens.

The wording here is inappropriate, as in the use of responsible, it sounds like there is some sort of accountability and the word role sounds like there is some sort of play to follow, when in actual fact most PhD students are left to their own devices and are responsible to themselves only, besides the wider ethical responsibilities that all should adhere to, in which case this should be made specific.

5a) 'who to approach'- I know who to approach or where I can find this out; Supervisor/ office staff; Director of certain areas I can talk to

5b) 'Institution values and responded to feedback' - always getting emails about feedback; framework there but no implementation; repsonded to problems and sorted it!

5c) 'My responsibilities as a research student' - Gathered at induction day; implies the responsibilities on me in the early stage; Good research culture- attend seminars and help with conferences, take part in culture

5d) 'Supervisors responsibilities'- Info given at meetings, annual review where we go over what roles and responsibilities what they can expect from them and they expect from us



## 6. Knowledge and intellectual abilities

One participant, in her first year, suggested that it was too early in her degree to give answers to this section, as she believes her knowledge and abilities will improve as she gets further in her degree.

6b: Arts student said this may not be a good term to be used in her area as they do not have methodologies. One student said that it was also early to answer this question being in 1st year of PhD.

6d: One student said that it was also early to answer this question being in 1st year of PhD. For arts students this was too difficult to answer as their study had nothing to do with evaluating findings and results were based on reading manuscripts. It was not critically analysing them but perceiving them and trying to understand them.

6e and 6f: Creativity and innovation - Science students could not differentiate between the two clearly. They were not able to find a clear difference between the two. They said that developing new ideas and thinking beyond the boundaries was the main aim of PhD and this is what they do everyday. Hence putting them under different heading would not be appropriate as they cannot have one without the other. On the other hand arts student said that there is a very thin line of difference between the two and it was really ambiguous to her. It was very difficult to find a thin line of difference which would differentiate one from the other. So both may be made into a single point.

6d was considered difficult to answer by one student. problem solving was not a consequence but a pre-condition of her studies

6a) 'Subject Knowledge' - Read papers, experiments and independent work; Reading to do on my research prog; Literature review-items to read - 2 questions in one?; Background reading/literature review; Can't answer thinks phd topic he knows 2 different areas with 2 different answers theoretical and practical which can be different; Theoretical and practical - 2 questions?; Didn't the the question; Studied for 4 yrs so I have knowledge!

6b) 'Methodology' - Techniques used in experiments; I have taken modules on this; Talks about methodology; Talks about research methodologies. Qualitative methodologies; Talks about course undertaken

6c) 'Critical-analytical' - Yes been improved; Not so much no essays to analyse yet; Reading, conversations with supervisor not seen sometimes as their research ? ; Writing up papers and explaining them- reaching conclusions; 2 separate questions evaluate findings and results and then critically analyse them; writing up findings to own research; applying to my own research. Didn't get the question-no answer!

6d) 'Problem solving' - Can't define, can't define, can't define, can't define, can't define -All struggled to bring examples to mind; what is appropriate? not sure who defines

6e) 'Creativity' - Independence of thinking; same as 6d?; add new knowledge to my phd area, developing new insight although doesn't mean your being creative; Not answered can't find an example; not sure what's mean doesn't like the use of imaginative- not clear; Struggles to bring examples to mind; struggles to bring examples to mind





6f) 'Innovation' - same as creativity?; Can't bring examples to mind; What to hook this onto physical product; No example on his own research but links to others work; No innovation no PHD! no point in doing PHD otherwise; creativity = thinking innovation = doing; struggles to bring examples to mind

## 7. Personal effectiveness

One of my participants suggested that "2, 3, & 4" on the Likert-type scale needed to be clarified. They asked for more information than "1 = not at all, 5 = greatly" so that they could answer the question accurately. For this participant, this point relates to each of the sections that are rated on a five point Likert-type scale.

One participant felt the term "developing" implied you didn't have any of these skills beforehand and that you were developing them from scratch, rather than enhancing them. Indeed they questioned why any university would enrol a PhD who hadn't already developed these skills to a high standard as they are necessary prerequisite for PhD study.

The beginning sentences before the 5 questions below play a very important role in guiding the participants in giving appropriate rating. As the statement 7a is continued with the opening line which actually states explicitly 'as a result of your research degree programme' the rating is quite relevant but as the question 7b, 7c, 7d proceed participants tend to break away from the relevance of their answers with 'as a result of your research degree programme' and the rating is more based on a general context

I don't think the numerical values correspond to any meaningful discussion, they need to be more explicit.

7a) 'Responsibility' - Can't answer question might rate highly to look good!; Time my own- need to work independently and take responsibility for my own actions- working for yourself; Structure or lack thereof and need to come to terms with this

7b) 'Project management' - Self imposed deadlines; partly organised with supervisor so they can see what I am doing and planning in good time; Talks more about teaching rather than research

7c) 'Flexibility' - Can't answer question, ?????, talks about his teaching!

7d) 'Career management' - ??; ??; Actively seeking out prof development opportunities taking ownership free will!

7e) 'Networking' - fine, fine, Not attended many conferences.....

## 8. Research governance and organisation

8b: What kind of contribution we are talking about? Referencing, citation or acknowledgement that we do at the start of a thesis. the word attribution may not be perfect keyword for the sentence following it. Instead people felt that it would be appropriate to write referencing/ citations. If acknowledging fellow mates, funding agency etc need to be included, it should be done under a separate keyword.

For arts students terms like copyright and use of language resources could be used and some questions on it can be included. She felt that the questionnaire was very much intended towards science students rather than



philosophy or arts. This is a major limitation of most questionnaires. Hence students like them just tend to answer it for the sake of doing it.

question 8a - there's a risk of focusing on the social and not the environmental aspect

8B interpreted by participants in different ways, possibly rephrase for more clarity to create understanding possibly by applying the question to issues of referencing and plagiarism in a clear way.

8a) 'Ethics'- Ethical approval/exams/licence to work with animals; not taught yet; ethical approval environmentally sustainable conduct of research?; Fine ethics; Thinks it is his personal ethics; ethic forms-working with secondary data

8b) 'Attribution'- Fine, fine, APA manual who counts as author?: Whos name goes where in papers; referencing and copyright

8c) 'Project Management' Planning of deadlines, fine, self imposed deadlines and course planning; working to deadline; development of course, time management etc; self managed deadlines

8d) 'Research Funding'- Post doc work have to apply to funding bodies; thinks it is about funding for PHD!; Talks about research funding and sources of; travel funds, conference funds, studentships; 2 questions mechanisms for obtaining income after PHD and to develop PHD into product; didn't answer question; didn't answer question; grant funding for research?

## 9. Engagement, influence and impact

Once again the numerical values need to be made explicit. For instance in 9a there are two examples of team working, each of these needs to be broken down into a sliding scale of working effectively with colleagues. For example, working constructively with colleagues, 5=contribute to group decisions, 4=carryout team decisions, 3=need help with team decisions, 2=need constant supervision with team decisions, 1=do not agree with team decisions and so on.

9a) ' team working' - Research solitary not working with other colleagues; Teamwork? only me and supervisor, teaching solitary as well.

9b) 'Leadership'- Not involved in influencing other or leading any one - not at this point anyway; Seminars/teaching only but nothing to do with research

9c) 'Effective Communication'- No answers just yes good at this; always seen as teaching???

9d) 'Engagement' - Don't do this; don't understand this question

## 10. Development opportunities

One participant discussed the word "communicating" as ambiguous in this section. She was unsure whether this referred to oral/written, formal/informal communication or indeed some combination of these. In



addition, she questioned whether distinguishing between different types of communication was relevant here and, thus, whether some clarification could be used.

10a. A number of my participants have stumbled on the “informing policy” part of this question. I have probed as to whether the confusion is because the question is not relevant or whether the confusion lies because the question is unclear. It appears that the question is sometimes relevant but the wording is confusing and at other times the question is not relevant and is also confusing. Specifically, some of the participants perceive “informing policy” to be too broad a term.

The same confusion with the word communication, as mentioned above. And also confusion between business (practitioner) and business (academic) audience.

10 a : Same confusion as above + Communication of research for the purpose of informing policy - no one could understand what it meant. even i was not 100% sure.

10 a and b seem to be merged. not clear where the boundary is. is attending just listening or also presenting?

10b has no relevance for many research students and could be prejudicial towards those that it doesn't. In other words employees of universities are more superior than ordinary students researching for the qualification.

10a) Development opportunities

1) Placement at work

2) All fine

3) All fine

4) All fine

5) Non academic audience?

6) Informing policy what government; what does informing policy mean? Whose policy government? ; most struggled with ‘purpose of informing policy’!

10b) 1-2 all fine 3) Formal training or informal training? mainly formal 4) again formal or informal mainly informal feedback

## Section 2 -Specific issues with the questions of the PRES

Your experiences as a postgraduate researcher

1. Supervision

1a. My supervisor/s have the skills and subject knowledge to support my research

Some of my participants have found this question difficult to answer if they have more than one supervisor, especially if the supervisors are quite different in their approaches to supervision.

-Respondents seem to see as “too much” the combined question on both skills and knowledge.

participants focus more on the issues than the actual skills of the supervisors and tend to give a lower rating but when probed the skills of the supervisors are not actually rated.

1b. My supervisor/s are available when I need them

One participant suggested that this is an ambiguous question because the supervisor and the student may have different beliefs on when they are needed for support/advice/guidance. This may not be relevant if the



PRES is interested in the student's perspective independent of the supervisor's beliefs but is something that one participant raised.

the notion of availability varies with participants and especially with the Phd students as one of the response was the rating for this statement would have been different if he or she had been in the 1st year of research as it takes time to understand process of supervision and it is more relative with the need that arises at specific times of study period

1c. My supervisor/s provide helpful feedback on my progress

One participant highlighted that they thought of "constructive advice" when I read the phrase "helpful feedback". This participant said that the term constructive advice would be easier for them to understand.

-Some researchers suggested that there should be a difference between 'verbal' and 'written' help.

1d. My supervisor/s help me to identify my development needs as a researcher

One participant said that "development needs" was ambiguous. She wondered whether this phrase was referring to skills, learning how to use equipment, professional development, or a combination of these things and more.

1e. My supervisor/s give me good advice on the range of career opportunities that are available to me.

Two participants were unsure if this referred to academic career advice only, as they felt their supervisors were only able to offer advice in this area.

2. Research environment

2a. My department provides opportunities for me to become involved in the broader research culture

Two participants suggested that the word "culture" was ambiguous - they were unsure what was meant by "broader research culture"

2b. The research environment in my department or faculty stimulates my work

One participant suggested that the word "environment" was ambiguous - they were unsure whether this related to the physical environment (e.g., facilities), whether it was referring to the atmospheric side of the environment (e.g., colleagues, other PhD students), or whether it was referring to both aspects.

One participant had issues understanding "stimulates" thought "encourages" would be more appropriate.

One of my participants did not understand what "research environment" includes and started to only consider physical conditions, such as labs and so on.

2c. I have frequent opportunities to discuss my research with other research students

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

2d. My department provides a good research seminar programme

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.



One participant unsure what research seminar programme refers to, when probed on what she understood by research seminar programmes she said she thinks it refers to having internal seminars where people present their research.

There was confusion concerning the meaning of the word 'seminar'. Is it about the training courses or about the extra seminars organised from the school?

### 3. Resources and facilities

#### 3a. I have a suitable working space

One participant questioned whether "working space" meant physical office space or more generally, working space across the University campus.

How are we defining "suitable working space". Having a desk and space to work in is great but does this also include whether it is a good temperature, if it is well lit, if the space is accessible.

the concept of 'working space' meant different things to different disciplines and research degrees as postgraduate research students from engineering was relating to the minimal provision of a desk space and Phd student from social sciences was more focussing on the ambience and the extent of stimulation the environment provides

#### 3b. There is adequate provision of computing resources and facilities

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

All participants tend to equate ' computing resources and facilities' to facilities alone.

#### 3c. There is adequate provision of library facilities (including physical and online resources)

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Some respondents suggested that it should be split in two questions (one on resources and one on facilities).

the word 'physical' was not much relevant to research which are futuristic in nature as they depend more on online resources.

#### 3d. I have adequate access to the specialist resources and facilities necessary for my research

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Participants were unsure what was meant by the term "specialist resources". My first three participants were all in social sciences or arts and humanities and they felt this term implied you needed a chemistry lab or engineering equipment, so associated it with the 'harder' sciences. Participants wondered whether or not access to archives or specific software for qualitative data analysis constituted a specialist resource. As it stands they were more likely to say this question didn't apply to them.

It was suggested that the understanding of this question can be different across scientific fields.

the term 'specialist' resources was often unclear for the participants.



#### 4. Progress and assessment

##### 4a. I understand the requirements and deadlines for formal monitoring of my progress

One participant said that that this question was hard to answer because they have not had many deadlines other than end of year panel review meetings/viva.

##### 4b. The final assessment procedures for my degree are clear

One participant suggested that the phrase “for my degree” may be too general - they said that their undergraduate and masters degrees sprang to mind rather than their PhD. There is a link here to my general comment on the first page of this document - perhaps consistent use of “research programme” throughout may help to guide participants more effectively?

##### 4c. I understand the required standard for the thesis

One participant suggested that this is a highly relevant question, which he is often asked about so stated that it was an important question to have in the PRES. However, he was unsure what “standard” was referring to – does this mean the standard of presentation or the standard/rigour of the research? Or perhaps both? Another participant discussed the same thing – they thought that the word “standard” was ambiguous.

Some participants stated that they are in the process of working in their thesis, so they can't really have an idea about the required standards for their theses.

#### 5. Roles and responsibilities

##### 5a. I know who to approach, or where to find this out, if I am dissatisfied with any element of my research degree programme

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Participants felt this was a Yes/No question. You either know or you don't, there's no middle ground so the Likert scale is unhelpful here.

There seems to be a large confusion on whether the researcher director, the supervisor, or the postgraduate administrator is implied from the question.

.participants tends to jump to conclusion based on the first few words 'i know whom to approach' and provide their rating thinking it is about general awareness of information, the meaning of 'research degree programme' is often overlooked.when later asked to read the entire sentence again, still there seems to exist a confusion about the word 'element' of research degree programme as it is not clear whether it is addressing 'people' involved or 'about the academic programme itself'.

##### 5b. My institution values and responds to feedback from research degree students

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Does this refer to formal and informal feedback, or just formal?

There is a difference between receiving feedback and then actually implementing it. Are you assessing whether the institution values feedback by being open to it or if they take it on board and implement it?

Some participants stated that they have never had the opportunity to provide feedback in their institution. the word 'institution' is largely related to one's own department or school rather than their university.



5c. I understand my responsibilities as a research degree student

this is very ambiguous question with overlap between 'what am i supposed to do as PGR' and also implying wider responsibility as a researcher in society

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

the word responsibility was more subjective as the participants were not clear if it was relating to responsibility as a researcher per se or with respect to their department .

As with 5a, you either understand your you don't.

5d. I am aware of my supervisors' responsibilities towards me as a research degree student

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Participants felt this was a Yes/No question. You either know or you don't, there's no middle ground so the Likert scale is unhelpful here.

In question 5d, they suggested that their should be one more question asking whether the supervisors are actually aware of their responsibilities as supervisors.

Your development as a researcher

6. Knowledge and intellectual abilities

As a result of your research degree programme so far, to what extent are you developing the following knowledge and intellectual abilities (1=Not at all and 5 = Greatly):

6a. SUBJECT KNOWLEDGE: Demonstrating a theoretical and practical understanding of my subject area and its wider research context

A couple of my participants have highlighted that this question is double-barreled and is therefore difficult to answer on one Likert-type scale. They suggested that theoretical and practical understanding are separate entities that may require two separate questions. One participant also highlighted that the wider research context is again something separate from theoretical and practical understanding and should perhaps have a separate question.

Question 6a was regarded as 'pointless', because it is impossible to be viewing the same literature for 3-4 years and not be well aware of its main theoretical and practical aspects.

6b. METHODOLOGY: Applying research methodologies, tools and techniques appropriately

Similar comment to the above here – one participant suggested that methodology, tools, and techniques are each different things that should be addressed with different questions.

6c. CRITICAL-ANALYTICAL: Critically analysing and evaluating findings and results

Again, a similar comment to the two questions above - the question may be double-barreled. One participant suggested that critically analysing findings/results and evaluating findings/results are two separate things that could each have a separate question. For example, this participant said that someone may be able to critically analyse their findings without having the necessary skills and experience to evaluate those findings.





6d. **PROBLEM SOLVING:** Formulating and applying appropriate solutions to problems and challenge  
Participants were unsure what “formulating” meant and suggested that problem solving wasn’t a tangible idea that they could related to.

6e. **CREATIVITY:** Being imaginative, thinking beyond normal boundaries and developing new insights  
Participants suggested that some sub-questions may be helpful here. One suggested that they are not creative but they are able to think beyond normal boundaries, for example. The confounding of questions may make it difficult for them to give an accurate answer on one Likert-type scale.  
One participant questioned whether “developing new insights” linked well to creativity.  
Question 6e was regarded as a very personal and subjective factor to evaluate.

6f. **INNOVATION:** Developing new ideas, processes or products, that are rooted in research  
One participant questioned whether this question overlapped with the previous question when asking about “developing new ideas”.  
One participant suggested that “rooted in research” was an unclear phrase. He discussed his inability to understand exactly what this meant. This participant is not a native English speaker (Turkish national) and, therefore, my interpretation of his interview is that the colloquial phrase “rooted in research” may be difficult for some participants to understand, particularly if English is not their first language.

## 7. Personal effectiveness

As a result of your research degree programme so far, to what extent are you developing the following personal qualities (1=Not at all and 5 = Greatly):

7a. **RESPONSIBILITY:** Working independently and taking responsibility for my actions  
No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

7b. **PROJECT MANAGEMENT:** Effectively planning, managing and delivering work in good time  
No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.  
The majority of the researcher suggested that they had these skills before they start their PhD, so it didn’t really help to develop them further.

7c. **FLEXIBILITY:** Responding quickly to changes and adapting easily to new situations

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

7d. **CAREER MANAGEMENT:** Taking ownership for and managing my own professional development actively  
Noted in first meeting: responsibility for action implied by the question which is problematic.  
No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

7e. **NETWORKING:** Developing, maintaining and using networks or collaborations



One participant suggested that this was a difficult question to answer because it was asking more than one question at once. Specifically, this participant suggested that developing networks/collaborations was something separate and different to maintaining these and that using networks/collaborations was something separate and different again.

One participant noted that to assess this question you had to see the benefits which are not always immediately evident with networking.

Question 7e: Seems to depend largely on the year of the PhD studies.

## 8. Research governance and organisation

As a result of your research degree programme so far, to what extent are you developing the following knowledge and skills (1=Not at all and 5 = Greatly):

8a. ETHICS: Applying guidelines relating to the ethical or environmentally sustainable conduct of research

One participant was confused about the phrase “environmentally sustainable” phrase but this was largely because it wasn’t relevant to his work rather than the question being unclear.

In question 8a there seems to be a subject understand of the term.

8b. ATTRIBUTION: Appropriately acknowledging the contribution of others in research publications, presentations and other work

One participant suggested that this was a very important question, especially when thinking about the differences between doing a degree in the UK when compared to his previous education in Turkey. He suggested that this was something that should remain in the final version of the PRES.

8c. PROJECT MANAGEMENT: Effectively planning, managing and delivering work in good time

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

In question 8c, many participants seemed to have this skill from the past.

8d. RESEARCH FUNDING: Having knowledge of relevant research funding sources and mechanisms for obtaining income

One participant suggested that this question was double-barreled. He suggested that having knowledge of relevant research funding sources was difference to knowing about mechanisms for obtaining income.

## 9. Engagement, influence and impact

As a result of your research degree programme so far, to what extent are you developing the following knowledge and skills (1=Not at all and 5 = Greatly):

9a. TEAM WORKING: Working constructively with colleagues, acknowledging their contribution unsure about relevance of team work in certain disciplines

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Participants were unsure whether this applied to just their PhD or their wider experience. Given PhDs are largely independent then team working is not really a factor. The problem is with the term “research degree



programme”, which implies the survey is only asking about your actual PhD rather than wider experience gained.

One participant felt team working should be called “team work”.

It seemed to be an irrelevant question, as a PhD is a lonely process.

## 9b. LEADERSHIP: Influencing others, providing direction and encouraging their contribution

No comments on this question as yet. Each of the participants suggested that they understood the question and would be able to answer it if asked.

Participants were unsure whether this applied to just their PhD or their wider experience. Given PhDs are largely independent then team working is not really a factor. The problem is with the term “research degree programme”, which implies the survey is only asking about your actual PhD rather than wider experience gained.

It seemed to be an irrelevant question, as a PhD is a lonely process.

## 9c. EFFECTIVE COMMUNICATION: Communicating information effectively and confidently to different audiences

One participant suggested that the question is clear but that “different audiences” is quite broad so she wasn’t sure what type of different audiences were being referred to (e.g., friends? colleagues? non-academic university staff? students?)

## 9d. ENGAGEMENT: Explaining or promoting research outside of an academic context

potentially need to be re-worded: engagement refers to personal engagement or with others?

Similar point to above...one participant wondered what “outside of an academic context” meant (i.e., friends? family? peers?). This participant wondered if more appropriate language could be used here?

Again, as above one of my participants hesitated here because they weren’t sure what this covered.

the the words ‘outside of an academic context’ is difficult to understand for an engineering research student compared to social sciences.

It seemed to create disappointment and confusion to participants, because of its complexity.

## 10. Development opportunities

10a. Please indicate which of the following opportunities you have experienced during your research programme (select all that apply):

-Attending an academic research conference

- Presenting a paper at an academic research conference.

A couple of my participants suggested that research students would not attend a conference without presenting at it and, therefore, questioned the need for two separate questions here. These suggestions arose from the notion that it is difficult to get funding to attend a conference if the research student is not presenting. This finding may need to be interpreted with a degree of caution given the recurring theme of confounding questions and given the knowledge that it is possible to attend conferences without presenting (e.g., to network/keep abreast of current developments in research).

- Submitting a paper for publication in an academic journal or book

One participant wondered whether “or book” was referring to academic books or just books in general.



- Communicating your research to a business audience
- Communicating your research for the purpose of informing

One participant suggested that “communicating” may be ambiguous in both of the above questions. Specifically, she wondered whether is meant orally communicating or written communication or both. Or perhaps some other more informal communication.

In terms of communicating your research to a business audience is this referring only to the private / profit making sector or a non-academic sector in general?

Although teaching is mentioned in more detail under 10b, two participants felt the option was missing from this list.

One participant felt ‘organising an academic conference or workshop’ was missing from this list.

One participant felt there were a broad range of opportunities and the list presented was rather limited. They felt an ‘other’ option could be included.

One of my participants suggested to refer poster presentations at for example research poster conferences.

In the third point, the word ‘workshop’ next to the word ‘conference’ could be added.

10b. Please indicate whether you have taught undergraduate students during your research programme (Y/N)

One participant suggested that a question relating to informal advising could be included here. This may be something specific to Loughborough but we have peer-to-peer learning groups where more experienced research students can advise less experienced research students and undergraduate/masters on an informal basis (without pay). This may include research methods training, statistical software training, data analysis training etc. While this isn’t necessarily “teaching” in the formal sense, it provides research students with an opportunity to consolidate their knowledge and gain experience of teaching small groups/mentoring. This is something that one participant would have liked to be able to discuss.

- I have received training for my teaching

Two participants interpreted this question as formal training (e.g., professional development courses)

- I have been given adequate support and guidance for my teaching

Two participants interpreted this question as more informal support and guidance (e.g., discussions with a supervisor/module leader/colleague/technical support, clarification of the aims and objectives of the lecture/seminar on an informal basis)

In terms of being paid for teaching and teaching contracts, two participants were unsure how to answer this because of how they were being funded to complete their PhDs. They were in receipt of bursaries. Part of the conditions attached to the bursary was that they had to undertake a certain amount of teaching duties. In this way teaching was included in their bursary contract, but they didn’t have a separate contract for the teaching. Similarly their bursary payment was made on the condition that they undertake teaching duties but they were not paid separately or it. They felt this needed greater clarification.

## 11. Overall Experience



a. Overall, I am satisfied with the experience of my research degree programme

One participant suggested that this question was too broad to provide an accurate answer. They said that they are extremely satisfied with certain parts of their research degree programme but that they were less satisfied with other parts. Another participant changed their supervisor during their PhD and said that he would like to give two different answers to this question for the two periods of his PhD. He suggested that his supervision has a significant impact on his overall experience as a research student and, therefore, may not be able to answer the question accurately.

b. I am confident that I will complete my research degree programme more or less within the planned timescale

One participant suggested that this question would depend on the stage of their PhD. She is in her first year and therefore is unsure how she would answer this question at the stage she is currently at. Perhaps this is something that is already or could be accounted for when collating/analysing data from the PRES?

One participant said that : this is a boundation. they have to and thats very evident from the answers they have given so far .

are the answers to q11 yes/no answers or on a scale?

12. Further comments

Please provide further information about your experience of your research degree programme. For example, what would further improve your experience?

One participant said that the example may lead participants.

Another participant who was being interviewed with Set 1 of the PRES suggested that more questions about the institution as a whole (e.g., extra-curricular courses, accommodation, social aspects, and the postgraduate community) would be helpful. She suggested that the wider University (not just her department and school) contributes to her research experience and that she would like to have been able to answer questions on this as well.

Another participant said that he would discuss his department's "hot desk" policy here (e.g., having different options for different people so that each research student has the opportunity to work in an environment that is most beneficial for them). He also said that he would comment on having research seminars for specific research areas.

One participant felt there are two questions being asked here (1. further information about your experience. 2: what would further improve your experience).

One participant questioned the purpose of this question as it was vague and seemed just to be stuck on the end to give people an opportunity to vent their frustrations if they felt they needed to, rather than offering any valuable insights.

One participant noted that when answering this question they could only think of things in relation to the topics already asked in the survey. Rather than seeing this as an opportunity to add something different they saw it as an opportunity to go into some detail on questions asked previously.

One participant said the question as worded ("Please provide further information about your experience of your research degree programme. For example, what would further improve your experience?") was cumbersome and long-winded. Why not just ask "what would improve your experience?"

Participant said that this questionnaire was more for a PhD student but less for a Mres student. Hence if Mres student had to answer this , it would be very difficult for them. In the last question on further comments, some directions on what to comment would be very useful.

Else participant just feel like no comments.



One of the participant suggested it would be easy to answer if there is some specificity in the question.

## Appendix 3 – Software and Hardware tools used in the project

Another interesting aspect of the project was the use of technology to support the activities. A number of Open source and proprietary tools were adopted.

- Livescribe Echo pens and their software were used to record the interview and annotate the recordings. (<http://www.livescribe.com/>)
- Google documents (<http://drive.google.com>) and Google sites (<http://sites.google.com>) were used to support the offline interaction between collaborators.
- Adobe Connect was used to create virtual rooms in order to meet with participants in group and record the session for later use. Skype was used for individual conversations with RAs.
- Limesurvey (<http://limesurvey.org>) was used to accept applications and provide the backbone for online questionnaires (which include the peer review mechanism).
- Nvivo ([http://www.qsrinternational.com/products\\_nvivo.aspx](http://www.qsrinternational.com/products_nvivo.aspx)) and Leximancer (<https://www.leximancer.com/>) were used to support the analysis of the interviews.