Researchers of Tomorrow: A three year (BL/JISC) study tracking the research behaviour of 'Generation Y' doctoral students

Preparatory Focus Groups: summary of issues

Introduction

Following the 'Google Generation' report published in 2008, the British Library and JISC have commissioned the Researchers of Tomorrow study into the information seeking and research behaviour of doctoral students born between 1982 and 1994.

To provide material and ideas to be explored in the quantitative components of the study, the research team (from Education for Change Ltd.) recruited three scene-setting focus groups composed of late-stage doctoral and post-doctoral researchers, and academic staff managing or supervising doctoral research. The groups were subject discipline based: social sciences (10 participants); arts and humanities (8); and science, technology and medicine (7).

The groups met in April 2009 and were asked to consider and discuss topics and questions relating to the context for doctoral research, such as:

- Current policy and institutional environments for doctoral research
- Efficacy of different models of doctoral research (e.g. collaborative, multidisciplinary)
- The research process itself, and the stresses and strains on individuals
- Specific, subject-related research and information-seeking behaviour

The following notes summarise the main points and issues arising from these discussions: where points arose specific to subject discipline, this is noted; otherwise, the participants showed a remarkable similarity of views on the main preoccupations and contextual factors currently influencing doctoral research.

Funding models and issues

Funding – availability and extent – and the policies of the funding organisation are critical factors affecting doctoral studies: for instance,

- Funding dictates the length of time the student has to complete their doctorate; different funders use varying funding models; the Research Councils typically require completion in 4 – 4.5 years but usually only fund for 3 years. The average length of full-time doctoral studies is 4.75 years (HESA, 2005).

- Three years is widely considered too short for doctoral studies; it can make research formulaic. Even 4.5 years, though more comfortable, may be too short to do any longitudinal studies. Also, the research ethics landscape has become more complex, so students find it difficult to get timely clearance on ethics for fieldwork.
- Funding and fund-raising occupies a significant place in many students' lists of concerns and pressures; they often need to become experts in the varying funding models and policies, in order to maximise the length of funded time they have for completion; "loopholes in ESRC funding allow more flexibility – the Council gives extra time to teach and deliver papers at conferences".
- Students (particularly self-funded) frequently have to raise money for additional things, for instance, paying for scientific experiments (laboratory time, volunteers etc), and funding field work;
- Self-funded students typically may work full-time or part-time to fund their studies. 54% of doctoral students are part-time (and therefore almost certainly self-funded).

There is also variation in funding from foreign governments for foreign doctoral students, both in the level and length of funding. Foreign students can find themselves in an inequitable situation; typically they spend three years studying on minimal funding from their government and a fourth year in full-time paid work while they are writing up. There may be insufficient recognition of the effect of these pressures on the majority of foreign students in particular.

Pressures of part-time studies

Part-time students can typically have difficulty in concentrating the mind to complete; to keep the ball rolling. Over a long period of time the landscape of the research study can change greatly, which is a further problem with part-time study.

Part-time study is easier for students who are working within the academic sector (as lecturers or paid research assistants); the environment supports the candidate, especially if their department pays tuition fees and gets the benefit of the student's work. It can be problematic for even for these part-time researchers to be and feel part of a research environment. Non-academic employers are not aware of the needs of part-time students and support required.

Self-funded students can feel stigmatised as less worthy or of a lower status.

Interdisciplinary studies and collaboration in research

In Arts and Humanities an inter-disciplinary approach is encouraged by many institutions; one of the benefits is increased funding that results in increased respect within the research community; nonetheless an interdisciplinary approach can close more traditional academic doors. There is perceived pressure for interdisciplinary approaches in Arts and Humanities from the government policy to make all research have 'social application'.

In Social Sciences interdisciplinary research centres may be on the increase, as there are funding incentives. Interdisciplinary research is not universally encouraged among HEIs, and even where it is encouraged the structure of the institution (in subject discipline 'silos') can often be a barrier to effectiveness.

Interdisciplinary studies can enrich research – introducing a different world view with a different subject area. It is easy to get too focused within a subject – working 8 hours a day on a narrow topic. Students' supervisors may discourage widening the focus, but for many students on the doctoral journey the process is as important as the outcome and interdisciplinary studies can be exciting. There is a constructive tension in getting the right balance.

Interdisciplinary work (in sciences) also has an impact on research resources: if funding comes from one source, what rights does the researcher have to use resources in another department and how does that impact on the students to whom those resources were allocated? Institutional structures are generally inflexible and supervisors can do little about that.

Collaborative research (i.e. doctoral students working in teams) is rare in Arts and Humanities. It can happen when a university collaborates with another non-academic organisation, such as a museum, on a particular piece of research.

Supervision

All focus group members stressed supervision as the most critical component for 'success' in the doctorate. It may be a supervisory team, with two supervisors per student. This can be productive or lead to in-fighting between supervisors; and students may be pulled in different directions between supervisors' different agendas.

The personal relationships element in supervision is as important as the professional side. Some students may have several supervisors during the course of their doctorate. The longer the student is there, the more likely their supervisor is to move on. This is therefore especially the case with part-time students. Students then may need to re-register with another institution; apply for more funding – either because they are following their supervisor or to re-register with a new supervisor.

Students are very aware that they have rights and mechanisms for complaints regarding supervision, i.e. guidelines of behaviour, minimum expectations etc. Supervisors work to QAA Code of Conduct, interpreted by each institution, and get mandatory training.

The most important stages at which the supervisor gets involved are at the very beginning, in reading 1st drafts of the thesis and throughout the whole writing-up phase. Supervisors' support on the ethics process can also be very important – although some supervisors do not understand that process (especially if they did not do it themselves because the guidelines are quite new).

Depending on how recently the supervisor did his/ her doctorate they may know more or less about useful online resources.

The supervisor's principle role is to motivate and direct the student and review their progress. "To tell you when to stop". Supervisors must help in tailoring the project in relation to the material that is out there to be processed – research and information sources have grown exponentially and consequently research topics have to become narrower (e.g. not all of Samuel Beckett or Dickens, but a very narrow issue or slice relating to them).

Not all supervisors are chosen – some are assigned – and there can often be a poor match between the supervisor's area of expertise and the doctoral student's chosen area of research: "I felt like a little child lost in the forest…I wanted my supervisor to suggest some relevant papers so I could find my way".

Part-time students are on a longer journey and it is harder to develop relationship with supervisor, especially if that relationship tends to be conducted remotely and mainly email/online.

Managing your supervisor is an important skill to learn as a doctoral student – bad supervision can sometimes make you determined to get on with it on your own.

There is a perception that doctoral students are more likely to get the attention of their supervisor if the institution is facing penalties from the Research Councils for non completion. For instance, if an institution has two or more non-completing students within a 4 year period funded by the AHRC, the institution cannot resubmit an application for funding from the AHRC for 3 years.

Completion rates are important, and progress boards are held in some HEIs to keep students moving, even when self-funded. Many students acknowledge that it can be helpful to be under a certain amount of pressure like this, though many supervisors still feel it just "takes as long as it takes" to complete doctoral studies.

Typically, supervisors of foreign students tend to be more relaxed as they have nobody breathing down their neck in this way: if they have more than one student, they tend to just let them get on with it and give then hardly any time. However, foreign students pay £11-12K in tuition fees, making each meeting worth £1K – students are going to expect certain things for that price!

Networking

Networking between doctoral students (particularly face-to-face) emerges as a very important feature of the doctoral journey, for a number of reasons and with a number of constraints: such as

- It is an opportunity to share the stress of writing and share research.
- Working alone is isolating and hard: for instance, (in Sciences) there is so much literature out there that students need other people to help sift through it, and direct them to what's useful. This may require contacting people outside own institution.
- However, (in Arts and Humanities) within one subject there can be a huge variety of research which may constrain conversations and sharing ideas. The issue of intellectual property raises its head in the context of online networking and is very concerning for students "because these are your 'original' ideas that you don't want public for people to take".
- An alternative practice for sharing/ networking is emailing other scholars whose work interests you – this can have positive effects.

Some (Social Science) informants expressed a definite preference for face-to-face networking in a dedicated 'doctoral space'. Part-time students may be disadvantaged because they have less opportunity to use this kind of space and can be even more isolated.

The networking issue can be simply about 'where your desk is' – whether you are part of a whole research group, working collaboratively, or simply located in a doctoral studies space. Institutions can do a lot to facilitate this kind of networking both within subject areas (here the supervisor is important) and among other doctoral students, so they can share experiences and help each other. Institutions (meaning departments and supervisors) have different ideas about what is 'knowledge' and how to work effectively across disciplines and other institutions.

Sometimes students are provided with a face-to-face space for sharing/ working or with 'reading groups' and they do not use them. HEIs don't really know what students want from a "research environment" Online research environments are important – especially for part-time students – but supervisors have to be very good themselves at working online – networking, opening doors, being proactive, etc. If they are not good at this it doesn't work well.

Research skills training

In recent years Research Councils have increased the mandatory training and professional development components of the doctorate without changing the length of the funding period. This can add to the time pressures already felt by students. Part-time students, however, are not required to do any research skills training.

The training is perceived (Arts and Humanities) to be aimed at making sure the student does some teaching, produces and publishes articles and papers and gets the thesis written on time. AHRC requires funded doctoral students' attendance on certain training courses and institutions must provide these courses in research skills ('Roberts training')

However, experiences differ widely with some students attending weeks of courses in their first year only, others speaking to colleagues in their department. In some cases the training is too basic, targeted at things a student would already need to know in order to have written the research proposal in the first instance. There appears to be a general lack of discipline-specific research training, which includes little training on non-generic research resources and how to find them.

Some Social Sciences informants spoke of mandatory generic modules - such as research management, how to network – which are considered very useful especially for initial networking with other doctoral students. Other research skill training is covered generically (e.g. using statistics, research methods etc) and is mostly useless – this kind of training might be better done within departments / subject areas.

Teaching and research outputs

‘Teaching’ here means, for instance, doing private tuition, taking seminars for tutors, helping in laboratories, assisting with undergraduate projects.

(Social Sciences) it is common practice for institutions (especially in big departments) to encourage students to teach up to six hours per week (and the institution pays them). Part time students don’t get the opportunity to do this. Most doctoral students find it very valuable experience.

(In STM) UK universities do not require doctoral students to teach, but students are sometimes offered laboratory teaching and marking. All agreed that teaching is beneficial and should be part of the doctoral experience.

Students can be under indirect pressure to publish, by the institution and, in some cases, the Research Council’s, as part of the drive for professional development.

There is, however, great variation in whether or not students are encouraged / pressured to produce research outputs (e.g. articles, conference papers etc) during their doctoral studies. It can also depend on the ‘disseminate and share’ perspective of the institution and the supervisor. Clearly, if the student is planning on an academic career it is obviously good to start getting published early.