**SCORE Fellowship Final Report
By Eleanor Quince, University of Southampton**

SCORE Higher: Using OERs to explore self-assessment for first year postgraduate researchers

Eleanor's project ran from 1st September 2011 until the 30th April 2012, the aim of the project was to explore how we can use OERs to aid first-year postgraduate researchers (PGRs) in self-assessing their skills base at the start of candidature.

http://www8.open.ac.uk/score/fellows/eleanor-quince

Activities

Methodology

Focusing on skills acquisition as defined through the Researcher Development Framework (RDF), this project sought to bridge the gap between the expectations of the Research Councils (RCUK) and the practicalities of being a new PhD student. The RDF is a set of skills, divided into four domains, which the RCUK expect PGRs to gain during candidature. Although we (Universities) start them all at the same point, PGRs do not all begin with the same skills set – they come from a variety of different educational and cultural backgrounds and have wildly differing career experience. This project set out to develop sample skills analysis, as OER, which would enable PGRs to self-assess their skills base at the start of candidature by, crucially, gaining an insight into their understanding of *what the skills to be developed are* and *why they are relevant to undertaking a PhD*. The OER would be produced as stand-alone activities each with a self-assessment element, which could also work together to form a cumulative self-assessment across the RDF domains. Once completed, students would have a clear idea of their skills level and would be able to confidently undertake the necessary additional training to advance those skills

which needed further development. The OER would be created with strong pedagogical framework, but with interchangeable sections so that they could easily be re-used or re-purposed by other HEI.

The project used the RDF as a starting point, identifying four skills (one from each of the RDF Domains). The skills identified were:

*Cognitive Abilities (Domain A – Knowledge and intellectual abilities)

*Self-Management (Domain B – Personal effectiveness)

*Research Management (Domain C – Research Governance and organization)

*Communication (Domain D – Engagement, influence and impact)

A group of ten volunteers were drawn from this year's new PhD student cohort (University of Southampton) and they were asked to undertake a series of interviews, observed tests, independent tests and feedback questionnaires to ascertain whether they understood what the RDF was; whether they understood what the skills within it were; whether they knew how to put these skills into practice within their doctoral research and whether the created OER improved their ability to self-assess and their understanding of the relevancy of skills acquisition to the practice of doctoral research.

Tasks

Introductory interview (October – November 2011)

The ten volunteers were interviewed individually after signing consent forms (as required by my University's Ethics Policy) and completing a paper-based Skills Analysis exercise (mandatory requirement of all new students). They were asked five broad questions – the idea being to give them plenty of scope to say what they wished to. The questions asked considered: how worthwhile they had found the paper-based Skills Analysis exercise; their knowledge of the RDF; their understanding of the four identified skills (as listed above); how they viewed these skills in relation to their proposed PhD; and what they hope to gain from this process. Each interview lasted approximately one hour.

Creation of test materials (November 2011 – January 2012)

The results of the interviews (outlined in 'Findings' below) were fed into the creation of five test OER activities. At this stage the key aim was to trial the proposed framework which was predicated on the main finding from the interviews – *the lack of inherent ability to relate the skills outlined in the RDF to undertaking a PhD*.   The first OER created was an introduction to the PhD, but with three 'interpretations' of what a PhD is: 1) the University definition 2) the practical definition (word limit, bound document, three-year project, etc.) 3) the contextual definition (skills development, research 'journey', etc.). This introduction underlines the importance of skills acquisition and development during the PhD and contextualizes the four chosen skills.   The next OERs created were four task-based activities focusing on

two of the chosen skills: self-management and communication. For the self-management activities, the volunteers were asked to undertake an 'in-tray' exercise which tested their ability to realistically assess the time it takes to achieve certain tasks and attempted to place the PhD in a wider life context – what sort of things might PhD students be doing alongside their research? They were also asked to complete a 'where does my time go' assessment, thinking about how effective they are at focusing on their PhD and how much time is realistic for them/expected of them. For the communication activities they were asked to analyse two posters and to then create their own poster using no more than 100 words. The aim of both these activities was to encourage the volunteers to think about who they are communicating to, when, how and why – i.e. thinking about the varied audiences for different types of work undertaken during the PhD and how to approach them. Again, the focus was on using these skills within the PhD and, for the second activity (making their own poster) directly within their own work. Each of the four activities included an introduction to the skill in the context of the PhD and a self-assessment task with built-in feedback.

Observed Testing (February 2012)

Two rounds of Observed testing were organized. The ten volunteers were split into two groups of five. The first group were observed at a face-to-face training session. The training session was led by an RA and covered the topics of self-management and communication using a short lecture, two group activities and two feedback exercises. The first activity was a discussion of methods of self-management based on a set of suggestions provided by the trainer and the second was analysis of a short article from the *Times Higher Education* entitled 'Shaken but not stirred by bond between arts and sciences' and featured a photograph of Bond-era Sean Connery in a diving machine. The article considered the differences in funding streams for STEM and Arts/Humanities subjects and stood as a humorous take on a serious issue. After each activity the students fed their thoughts back to the trainer who then gave a summation of what had been discussed/learnt. The face-to-face session lasted one hour. The group then had an hour to undertake the five OER training activities (as outlined above), observed by myself and the RA. The second group of volunteers repeated the exercise, but they undertook to work through the OER activities first and engaged in the face-to face session afterwards.   The splitting of the group into two was a change to the original project outline (as reported at interim report stage) and was in order to provide a comparison between the face-to-face and OER experience – did the students who experienced the face-to-face training first get more out of the OER or vice versa? The results of the observed testing are outlined in 'Findings' below. A control student (in year three of a PhD) was also involved in the testing (see 'participants', below).

Feedback (February 2012)

Once the two rounds of observed testing were complete, all volunteers were sent a Feedback Questionnaire to complete. The feedback questionnaire consisted of ten questions which asked the volunteers about the OER experience – how did they approach the materials; were the instructions clear; did they have any difficulty with any of the files; what did they like/dislike about the materials; how did they manage with the self-assessment element; and if they found the process valuable. The results of the feedback are outlined in 'Findings' below.

Revision of materials; creation of new/additional materials (February - March 2012)

Based on the feedback and observations, the remaining five activities were created and some minor adjustments were made to the existing OER. The five activities created were one cumulative self-assessment document (building on the existing self-assessment within each OER) and four task-based OER centered on the two remaining skills – cognitive abilities and research management. The first cognitive abilities OER focused on 'recognising problems'. It asked participants to listen to a recording of a conversation between a student and an ECR and to identify ten aspects of a core problem relating to ethical research issues. The second cognitive abilities OER tasked the participants with locating information on ethical policy and university requirements (forms, documentation, timing, etc.); solving problems. Again, these OER related the skill of cognitive ability directly with a common issue for PhD students. The first research management OER asked participants to re-think their project plan in light of a series of questions about the types of activity they may need to carry out over the period of candidature. The second research management OER encouraged participants to place their work within the wider research context by either a) creating an abstract for a paper b) organizing a mini conference. These OER encouraged a consideration of research management in broad terms, but related back to the PhD experience. Again, each of the four activities included an introduction to the skill in the context of the PhD and a self-assessment task with built-in feedback. The five OERs created previously and already tested, were adjusted to take into account the feedback received from the volunteers. This included an adjustment of the size of the posters; the inclusion of some additional contextual information, including adding comments on 'lateral thinking' exercises into the 'in-tray' OER (self-management) and re-writing the self-assessment feedback; and the revision of the type of text box used for the self-assessment (the previous text box had not expanded beyond the page as the volunteers typed).

Independent Testing (March 2012)

All materials were loaded into the University of Southampton's VLE – Blackboard. The Faculty of Humanities has an existing Blackboard course for PGR which I manage, so access to this course was granted for those volunteers who are members of other faculties in order for the OERs to be stored in one

place during testing and volunteer access monitored. Volunteers were given two weeks to work through the OER by themselves. They were then asked to complete a Feedback Questionnaire.

Feedback (March 2012)

Once again, the feedback questionnaire asked the volunteers about the OER experience – how did they approach the materials; were the instructions clear; did they have any difficulty with any of the files; what did they like/dislike about the materials; how did they manage with the self-assessment element; and if they found the process valuable. The questionnaire contained additional questions about the cumulative self-assessment OER – did the volunteers find it easy to use; did they understand why it was numerical; and did they think it was good idea. The results of the feedback are outlined in 'Findings' below.

Exit interview (April 2012)

Following receipt of all of the completed Feedback Questionnaires, the volunteers were again interviewed individually. They were asked the same five broad questions as in their introductory interviews, but with two changes. The first question asked was how worthwhile they had found the OER activities and the last question asked was whether they thought that the project process (as a whole) had changed their thinking/approach to their PhD. Each interview lasted approximately one hour. The results of the exit interviews are outlined in 'Findings' below.

Participants

Ten student volunteers participated in the study. The volunteers were drawn from a variety of backgrounds and fields of research; all had embarked upon a PhD at the end of September 2011. Three participants were overseas students, educated outside of the UK system (two Asian, one Middle Eastern). For the findings section these students are labeled V1, V2 and V3. Three were mature students, returning to study after a period of work. Of these three, one had retired from work but was studying part-time (V4); one was working and studying part-time (V5) and one was studying full-time (V6). The remaining four were UK students who had continued their studies through from Masters' degrees. Of these, one was on a 1+3 computer science programme funded by the EPSRC (V7); one was funded by the AHRC (V8); two were self-funded (V9 and V10). Two volunteers (V8 and V9) were studying at a distance. An eleventh student, now in their final year of study, was used a control student during the observed training elements of the study (V11). This student, who had already taken part in training and development activities over a three year period, was used to highlight areas where knowledge/skills had been assumed – throwing into high-relief those aspects of the OERs which the new students struggled with. An RA also participated in the project; providing the 'face to face' training session for the student volunteers and contributing to the observation activities as well as to the overall project and the development of the OER

materials. Prior to the start of the project all volunteers were given an Information Sheet which placed the project in context and explained each of the stages of activity. As part of general PGR Induction they were a starter pack which included a copy of the RDF and of the Skills Analysis form. Before being interviewed, each volunteer signed a consent form. All interviews were recorded.

Outputs

Ten OERs were created and these have been loaded into open repository HUMBOX and will shortly be added to Jorum: all ten are prefixed with 'SCORE materials generic'

Introduction – outlining purpose for creation and overall context for the PhD

Cognitive Ability I – recognising problems

Cognitive Ability II – solving problems

Self-Management I – time management

Self-Management II – work/life balance

Research Management I – long-term project planning

Research Management II – your research in the wider context

Communication I – analysis of visual communication

Communication II – audience appropriate communication

Cumulative self-assessment

I have also agreed to write an HEA Case Study on OERs as self-assessment with Nick Pearce (Durham) and Stylianos Hatzipanagos (KCL).

Findings

The aim of the project was to create OERs which would enable PGRs to self-assess their skills base at the start of candidature by gaining an insight into their understanding of *what the skills to be developed are* and *why they are relevant to undertaking a PhD.* Utilising volunteers who were at the very start of their programme of study and engaging with them over a seven month period, enabled me to chart their development: how, for example, they integrate with other students and the wider research community; how they are directed by their supervisory team; how their project shifts/grows/changes; how they are affected by the training they undertake, etc. Each encounter with the volunteers shed new light on the project's objective, particularly as the volunteers were given time and space to reflect on previous encounters at each stage. All encounters contributed to the development of the final materials, but often in very different ways. The main findings at each stage are summarized and contextualized below. The

lion's share of reporting is given over to the introductory interviews as the results from these interviews formed the basis for the creation of the OER and determined the shape of the project.

Introductory interview

The ten volunteers were interviewed individually, each interview lasting approximately one hour. As the questions were very broad (see 'tasks', above) there was a plenty of scope for each interviewee to talk about their personal concerns regarding skills development. As outlined in 'participants' (above) the volunteers had been drawn from a variety of backgrounds in order to highlight a pre-identified issue: that although Universities start all PhD students at the same point, they do not all begin with the same skills set. Here is a summary of the answers given for each of the questions asked, key responses are italicized and the main finding from each question is in bold:

How worthwhile did you find the paper-based Skills Analysis (SA) exercise?

Views on the usefulness of the paper-based SA exercise were mixed. In broad terms, the UK students who had come straight through from BA to Masters to PhD (V7 – V10) found the exercise useful. One noted that a similar task had been undertaken before their Masters and that they found it useful to consider how their skills had improved since beginning the Masters course. The mature students were divided in their response. The part-time work/part-time study volunteer (V5) had recently undertaken a CDP exercise at work and had found a considerable amount of transference between the two exercises; the SA was less worthwhile than the CPD. The retired volunteer (V4) had extensive experience as a project and team manager in a business environment and felt very confident about their skills base generally, but appreciated the value of the SA in helping to identify areas where things had moved forward (computing/IT in particular) and further training would be required. The final mature student (V6) felt the SA was too basic to be of value: *further detail was needed in identifying and explaining the skills*. The overseas students, V1 – V3, had gone through the exercise with their supervisors and overall had found it to be useful. V2 noted that their educational background meant that they were *not familiar enough with the 'ideas and concepts' presented within the SA and as a result, could not foresee how these skills would assist over the coming three years*. **None of the volunteers related the SA to the RDF**, although the former is based upon the latter and the skills which are listed in the one appear in the other.

What do you know about the RDF?

Of the ten volunteers, seven could identify the RDF when it was shown to them.

- V1 had no idea what it was and felt that it was all *'too much to take in' at this early stage*.
- V2 had not heard of the RDF prior to Induction and stated: *'I do not see the point of it. It is full of things which are not related to my PhD'*

- V3 understood what the RDF was, *but could not understand it in the context of the PhD; 'it is more about the things you might choose to do after your research'*.

- V4 recognized the RDF from Induction and thought that it was 'quite useful'.

- V5 felt confident in recognizing the RDF but was unsure of its value.

- V6 recognized the RDF from Induction and the starter pack but had not looked at it in detail.

- V7 knew about Vitae and had visited their website to download resources, but did not know about the RDF and did not recognize it.

- V8 did know what the RDF was from the training attended at the start of the PhD and felt that the main point of it was 'reflection': *'it is not a practical document'*.

- V9 recalled the RDF from the Induction day and PhD starter pack but had not looked at it since. On second viewing it 'seemed less scary' but *'not overly relevant to what I am doing'*.

- V10 was not really sure what the RDF was and on looking at it with the interviewer commented that it 'goes round in a circle. Am I meant to follow it from A – D? *It isn't clear'*

The link between the RDF and the SA was explained to the interviewees at this point. It is worth noting that of those who did recognize the RDF, only one reported that they found it 'useful'. Unlike the responses to the first question, there is parity between the views of the volunteers, regardless of their background or previous experience. ***Nine of the volunteers were uncertain as to the value or relevancy of the RDF***.

What do the four skills (Cognitive Abilities (A); Self-Management (B); Research Management (C); Communication (D)) mean to you?

There were marked differences between the volunteers from different backgrounds in response to this question. The overseas students, V1 – V3, were very focused on the concept of 'critical thinking' which they perceived to be the main function of 'cognitive abilities' and to continue to run through the other skills too. This is clearly a result of perception. V2, for example, commented on A: 'this is critical thinking which is important in Western culture. I am not so good at critical thinking, so I have to take things step by step'. All three volunteers were challenged by some of the words used within the RDF when it was shown to them: V3 stated when considering D, 'I don't know what dissemination is … I want to write more though and publish my work'. The mature students (V4 – V6) were much more focused on the skills as a long-term goal and far more reflective of what they could mean. Commenting on B, V5 said 'ah, this is a skills set which is developed over time – time-management, project management, organization and admin; the things which you learn as you go'. The UK students who had come straight through from BA to Masters to PhD (V7 – V10) all commented on the skills as related to their Masters degrees. For example, considering B, V7 commented: 'In the past and for my Masters I was 'tasked' all the time, so now I find myself asking 'what do I do now?' and there is no one to supply the answer. This skill is finding that

answer'. ***None of the students were able to give a full description of the skills outlined within the RDF in RDF terms,*** *but they could all given examples of how they had used these skills in various situations*.

How do you view these skills in relation to your proposed PhD?

Again, *there were marked differences between the volunteers from different backgrounds in response to this question.* The overseas students, V1 – V3, all considered A and D to be most relevant to the PhD. The mature students (V4 – V6) all noted that these are skills which they would readily put into practice in the work environment, but that they were less certain of how they related to their PhDs. V5 commented that 'these skills are not necessarily transferable into the PhD. I have a lot of skills from work which I can transfer, mostly computing, Endnote, SPSS, Excel. The practical skills will be the most useful to me.' The UK BA-to-Masters-to-PhD students (V7 – V10) were most enamored with 'research management' (which they took to be the practice of writing a PhD), but considered the other skills to be far less relevant. V6 felt that it was the reflective element of the skills training which would be of most value, 'I know these skills and I can understand them, but I have trouble relating them to my own work. Going to training sessions and reflecting on how others are using the things they have learnt is what is helping me at this point. I am conscious that training could easily take over. I won't let my research suffer'. Interestingly V7 noted that 'all of these skills are related to my PhD, but I am not sure how, plus I am seeing lots of gaps. Before I started my Masters, I was working … I have come back into education and there are things which I would expect to see in the RDF which are not there – communication for example, needs to be much broader, what about the use of social media?' *Crucially,* ***none of the volunteers could understand how to relate the skills to the practice of a PhD,*** *but were able to relate some skills to elements of their study when pressed*, for example archival work, language-based interviews, computing (including the use of different software programmes), getting funding, the difficulties of interdisciplinary work, etc.   Those who had recently attended a face-to-face training session on planning and time-management were also keen to share how the knowledge they had gained would have an input into their research planning: 'I went to a training session and [the trainer] gave us all ideas on planning and time-management. I am putting these into practice in my own work' (V1). For the volunteers, ***the PhD itself was always divorced from the general practice of being a PGR.***

What they hope to gain from this process?

As expected the volunteers all had different reasons for getting involved:

- V1 is going to be interviewing within their research project and wanted to gain some insight; 'I am also interested in the obstacles students face'.

- V2 noted that there were two things they wished to get from the process: 'one, getting to know the University environment and the other students. Two, I think this will help me to help other students when they start their PhDs'

- V3 wanted to become more critical, they felt that their education to date had not encouraged criticality and this was something they needed to develop – 'I want to learn from this process and reflect on how my skills develop'.

- V4 stated 'this process is already making me think about my deficiencies and how I might overcome them, which is the point, isn't it? I am enjoying myself! And I want to know what OER are …'

- V5 wanted to 'influence the future of the SA. I think it needs to be more accessible, more transparent … worthwhile, valuable and meaningful'

- V6 hoped to 'be able to reflect further on how I am getting on in relation to others'

- V7 stated that they were 'really interested in all of this. My work crosses interdisciplinary boundaries, so I am constantly thinking about how I justify what I am doing to the different stake holders. I think this process will help me that'.

- V8 said 'I am looking for a new start, a break from the Masters. I like the potential diversity of the PGR training programme and I think we can all get something out of it.'

- V9 wished to 'feel more on top of things, more involved' with the University.

- V10 wished to 'get a clearer sense of what is on offer to me while I do a PhD'.

The main finding from the interviews is **the lack of inherent ability to relate the skills outlined in the RDF to undertaking a PhD**; for the majority of the volunteers the view was that actually 'doing the research' was removed from the other aspects of being a PGR including training, demonstrating an inability(at this early stage) to see the links between skills development and undertaking a PhD – *the two are simply running in parallel and sometimes, one (training) detracts from the other (PhD).* Therefore the OER created needed to place the skills firmly within the context of the PhD; explain the skills to the student and provide clear information on taking the skills forward depending on the outcome of the self-assessment.

Observed Testing/feedback

The volunteers were split into two groups. Group One (G1) was observed at a face-to-face training session followed by an hour using the OER test materials; the other group (G2) was observed for one hour using the OER test materials and then at a face-to-face training session. During the observation of the OER in both G1 and G2 the RA and I focused on four key elements in order to best assess the OER:

1. time – were the volunteers able to complete the OER in the time given
2. ease of use – did they have any problems with any of the materials

3. order – what order did they approach the materials in

4. reading – did they take the time to read the introduction before embarking on the activities

The control student, V11, was present at both tests.   Following the tests, each group was emailed a short feedback questionnaire which asked them to comment on the OER, but also considered the face-to-face training element of the process for purposes of comparison. The completed OER were collected in for additional comparison.

Group One (G1)

The volunteers were introduced to the trainer and to each other and then settled easily into the training session. They engaged fully in the session, taking notes during the lecture, and had lively discussions during each of the feedback periods. The THE article elicited some strong feelings from G1 and they debated the science vs. art funding issue enthusiastically. It took some time to get them seated at the computers to begin the test of the OER materials. G1 was instructed to work through the materials at their own pace. All volunteers with the exception of V4 completed the tasks in the time allocated. All volunteers struggled with two aspects of the OER – text boxes not expanding to enable them to write their responses into the self-assessment section; and not being able to view the two research posters side-by-side, making the comparison exercise difficult. The volunteers were split in the order they completed the OER; half completed 'communication' first and half 'self-management'. Not all read the introduction first (four of the six, with V11 as one of the four read it).

Group Two (G2)

The volunteers were introduced to the trainer and to each other and were then asked to take their seats at the computers. G2 was instructed to work through the materials at their own pace. All volunteers completed the tasks in the time allocated. Again, all volunteers struggled with same two aspects of the OER – text boxes and not being able to view the two research posters side-by-side. The volunteers were split in the order they completed the OER; four completed 'communication' first and two 'self-management'. All volunteers read the introduction first (V11 was the exception, but this student had read it before in the previous session). After one hour, the volunteers were asked to sit together at a table and to participate in the face-to-face training session. Having already spent an hour looking at their PCs, G2 were less enthusiastic than G1 and their discussion was muted. They were, however, a far more inclusive group – inviting the quieter members to join in at the discussion points.

Feedback

There was consensus from all volunteers that they wanted 'more information'; they also recorded their difficulties with text boxes and not being able to view the two research posters side-by-side. There was a lack of understanding of some of the terms used, for example 'visual aspects', when considering the posters. *There was concern over the standardized responses used in the self-assessment*, as V8 stated 'I wanted to justify why I had said what I had done; I felt that my answers were just as valid [as the ones given]'. All volunteers enjoyed the experience.

The main finding from the observed testing was the *need to revise the materials to make them easier to use*, and also that students enjoy being able to engage with one another. They preferred the face-to-face training to the online. ***Importantly, G1 got better results on completing the OER than G2; so more contextualization was needed within the OER if they were to be free-standing***. I undertook to amend the exercises to take these issues into account, including an overhaul of the self-assessment and information elements.

Independent Testing/feedback

All materials were loaded into the University of Southampton's VLE – Blackboard. Volunteers were given two weeks to work through the OER by themselves; their access was monitored. They were then asked to complete a Feedback Questionnaire.

Monitoring

All the volunteers including V11 undertook to access the VLE and to view the materials. Some volunteers (V4, V5, V7 and V9) visited the materials on several occasions over the two week period, the others visited just once.   The maximum time taken to view was three hours and 12 minutes and the minimum 23 minutes.

Feedback

Overall feedback on the materials, particularly with regard to the quality and level of information given, had improved. Everyone had enjoyed the experience to date, and all had found it interesting and valuable. Views on the value of a cumulative self-assessment were mixed. V6 recorded – 'I am not sure why a total score is necessary … [but] it would be good to have a tool that shows the scores of all the exercises on one page'. But all felt that any numerical results needed to be accompanied by commentary.

Exit interview

For the exit interview the volunteers were asked the same broad questions as in the introductory interviews, but the first question asked was how worthwhile they had found the OER activities and the last question asked was whether they thought that the project process (as a whole) had changed their thinking/approach to their PhD.   I am conscious that their responses are likely to be coloured as much by the progress they had made over the project period than by the project process itself, but ***on the whole the volunteers noted a marked improvement in their understanding of the PhD, the RDF and the wider PGR/research environment***. V4 for instance said: 'very worthwhile. I struggled which surprised me, perhaps I don't know as much as I thought I did. And I found out that there is an Association in London which runs skills courses at £300 a pop and we get them for free here. I think everyone should take advantage of what you offer; you would be mad not to and I shall tell the new students that in October'. There was also a ***consensus that skills analysis should be undertaken later rather than earlier***, to give students time to settle in, work out what the skills are, undertake some exercises and then come to some decisions about what they should focus on.

These findings should be taken forward to Vitae in order to demonstrate how they can better contextualize the skills outlined in the RDF. I will contact Vitae with a copy of my findings and links to the materials. Within my own institution I will be reviewing my SA (content and timing) and embedding the OER within online training for my students and those across my university.

Reflection

- This project has challenged my understanding of the students' awareness of the RDF. When I began this project, I thought that skills acquisition was recognized and understood as an important element of the doctoral process; that on, at least a basic level, all students would be able to relate the skills outlined in the RDF to their own work or to the PhD as a whole. This is clearly not the case.

- I was expecting to see a more marked difference between students from different backgrounds and while this was borne out in terms of approach taken, it is appears not to be true in terms of understanding.

- Prior to undertaking this project, take-up of my own VLE based online training for PGRs had been reasonable (around about 348 uses per annum) but not great. I had noticed a distinct trend towards use by those who were studying at a distance, and not by those who were working on campus who preferred the face-to-face sessions. Using OER as the method for an exploration of skills self-assessment provided a unique perspective. It highlighted the importance of students' engagement with skills acquisition on a variety of levels; not just in the training room or during

supervision. From the data gathered, it is clear that the students gained most from the periods of self-reflection and group discussion, so I will try to incorporate these elements into my training programme from this point forward. I will most likely adopt a blended approach making use of online resources within the classroom, asking students to complete activities prior to training and then reflecting on these through discussion within the session.

- During this project I visited the University of Surrey, giving me the opportunity to compare their set-up with that of my own institution. I also looked at materials in use at the Universities of Warwick, Manchester and Birmingham, as well as those available through Vitae. There is a wealth of material out there but I am still confident that my particular idea, self-assessment through skills-based activity, fills a gap and it was good to have this acknowledged by colleagues at Surrey.

Dissemination

Panel at Cambridge 2012 (16th – 18th April 2012, Queen's College, University of Cambridge) – 'Open educational resources for the development of Doctoral students and researchers', with SCORE colleagues Dr Vivien Sieber (University of Surrey) and Dr Ian Fairweather (University of Manchester). We hope to gain a publication from this event. There is also an HEA Case Study planned (see 'outputs', above).

Conclusions

Main conclusions:

* New PhD students need far more guidance to properly understand the validity of skills acquisition and development during the PhD process

* The RDF needs to be better contextualized to make it meaningful. This could take a thematic approach (e.g. Vitae have recently circulated an 'employability' version of the RDF for consultation which places the skills in this particular context) or could be discipline/subject specific.

* Online resources, OERs, materials stored in VLEs can be a great way of introducing students to new/existing skills without scaring or patronizing them. They can work through these materials at their own pace and away from the scrutiny/critical eye of others.

* My own HEI's SA document needs a lot more work to make it effective.

Contribution to best practice:

I think the main contribution to best practice is within the OER themselves. The interchangeable sections which can easily be replaced by subject or thematic specific material without altering the principles and effectiveness of the self-assessment makes them ideal for re-purpose and re-use.

<u>How others can use what has been done:</u>

Within my own institution I will be using 'Southampton' versions of the OER, embedded into my VLE, to introduce University-wide skills training. I have a three year project during which I will be setting up online training for our PGRs – currently we have nothing at University level, only pockets of activity within Faculties or Departments. I think that other HEIs could use this material in a similar way. It could also be used for Masters students to help them to get a better understanding of what a PhD actually is, before they make the decision to embark on a further degree.

Summary

In 2010 Vitae and the Careers Research and Advisory Centre (CRAC) launched the Researcher Development Framework (RDF) to replace the Joint Skills Statement (JSS) (2001). The RDF is a set of skills, divided into four domains:

*Domain A – Knowledge and intellectual abilities

*Domain B – Personal effectiveness

*Domain C – Research Governance and organization

*Domain D – Engagement, influence and impact

Unlike the JSS which was primarily aimed at doctoral students, the RDF sought to present a skills framework by which ALL researchers, at whatever level and with whatever experience, could 'articulate their skills and take a proactive approach to their professional development' (Vitae, 2011). The RDF was adopted by the Research Councils (RCUK) as the standard by which training for PhD students should be mapped. This project started with the premise that, although we (Universities) start them all at the same point, PGRs do not all begin with the same skills set – they come from a variety of different educational and cultural backgrounds and have wildly differing career experience. As a result, they would not all view, understand or interpret the RDF in the same way. How can we, universities, manage the students' experience of the RDF, their expectations of achievement and skills development during candidature, and help them to make good decisions about the training on offer to them?

To address this concern, the project developed sample skills analysis, as OER, which would enable PGRs to self-assess their skills base at the start of candidature by, crucially, gaining an insight into their understanding of what the skills to be developed are and why they are relevant to undertaking a PhD. The OER were produced as stand-alone activities each with a self-assessment element, which can also work together to form a cumulative self-assessment of sample skills across the four RDF domains. On completing the OER activities, students can confidently undertake training which will help them to advance those skills which need further development. The OER have been created with interchangeable sections so that they can easily be re-used or re-purposed by other HEI.

For the duration of the project, the OER were tested on a group of ten new PhD students from a variety of different backgrounds, including overseas students, educated outside of the UK system; mature students; UK students who had continued their studies through from Masters' degrees; and a mix of those studying part- and full-time. All the volunteers were interviewed at the start and finish of the project. The main finding from the first interviews was the lack of inherent ability to relate the skills outlined in the RDF to undertaking a PhD. By the end of the project, having gone through two rounds of testing and feedback, all participants noted a marked improvement in their understanding of the PhD, the RDF and the wider PGR/research environment. Using OER as the method for an exploration of skills self-assessment provided a unique perspective. It highlighted the importance of students' engagement with skills acquisition on a variety of levels; not just in the training room or during supervision.