

Paper

Longitudinal Evaluation of the Postgraduate Certificate in Advanced Research Methods and Skills Programme

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Abstract

The Postgraduate Certificate in Advanced Research Methods and Skills is a recently introduced postgraduate certificate programme providing enhanced advanced training in research methodologies and transferable skills for postgraduate researchers. A longitudinal evaluation has been undertaken by assessing skill levels and feedback from participants throughout the programme and, as feedback from the first cohort to complete the programme is now available, an assessment of the programme's value can be made. This paper outlines the evaluation methods used to demonstrate the impact of the programme as well as summarising the successes of the programme, plans for programme improvement and the future application of evaluation.

The Postgraduate Certificate in Advanced Research Methods and Skills

The Postgraduate Certificate (PGCert) in Advanced Research Methods and Skills (PGCARMS) was introduced in the 2011/12 academic year to provide mandatory enhanced advanced training in research methodologies and transferable skills to a small cohort of doctoral researchers in the University of Birmingham's Economic and Social Research Council (ESRC) Doctoral Training Centre. A PGCert qualification is awarded upon successful completion of the programme. The programme has been expanded and is now offered to researchers from the Biotechnology and Biosciences Research Council Midlands Integrative Biosciences Training Partnership (BBSRC MIBTP) and doctoral researchers from other Colleges.

The advanced research training takes a variety of forms including formally taught short courses from the MA in Social Research and other institutional programmes, placements on research projects and volunteering opportunities, as well as credit-bearing central provision in advanced transferable skill areas such as entrepreneurship, research consultancy, public engagement, and teaching.

The programme aims to:

- Combine research and transferable skills training to enable a more embedded and holistic approach to doctoral researcher development.
- Encourage a critically reflective, evidence-based approach to doctoral researcher development (in both subject specific and transferable skill areas).
- Provide an enabling environment in which to assist the professional development of individuals engaged in doctoral research.
- Promote peer learning and dialogue within and between the disciplines across Schools and Colleges in respect of 'good practice' in research methods and transferable skills development.
- Ensure programme participants have the necessary advanced research methods techniques they need to succeed and excel in their doctoral research.

The programme is managed by the University Graduate School (UGS), with teaching provided by colleagues from across the University including academic staff from the College of Social Sciences, the College of Life and Environmental Sciences and central partners such as the Enterprise and Innovation team.

Participant feedback is encouraged within the programme not only from individuals, but also through the Student-Staff Liaison Committee. In addition, the UGS has an evaluation strategy for all the training and development activities undertaken (see D'Souza, Hawkes and Mills, 2013). The programme provision is evaluated using the Impact Framework developed in 2008 by the Vitae Rugby Team to effectively evaluate researcher development activity following the provision of ring-fenced funding for researcher development (Bromley and Metcalf, 2012). The Impact Framework defines five impact levels quantifying the effect of the training or development activity provided and continues to be widely used across the sector to evaluate researcher development. These impact levels are shown in Figure 1 below and demonstrate how difficult it can be to evidence that training or development activities are delivering impacts up to Level 4. Longer-term outcomes, such as successful completion of a PhD or securing employment, are likely to result from a combination of inputs rather than any one training or development activity.

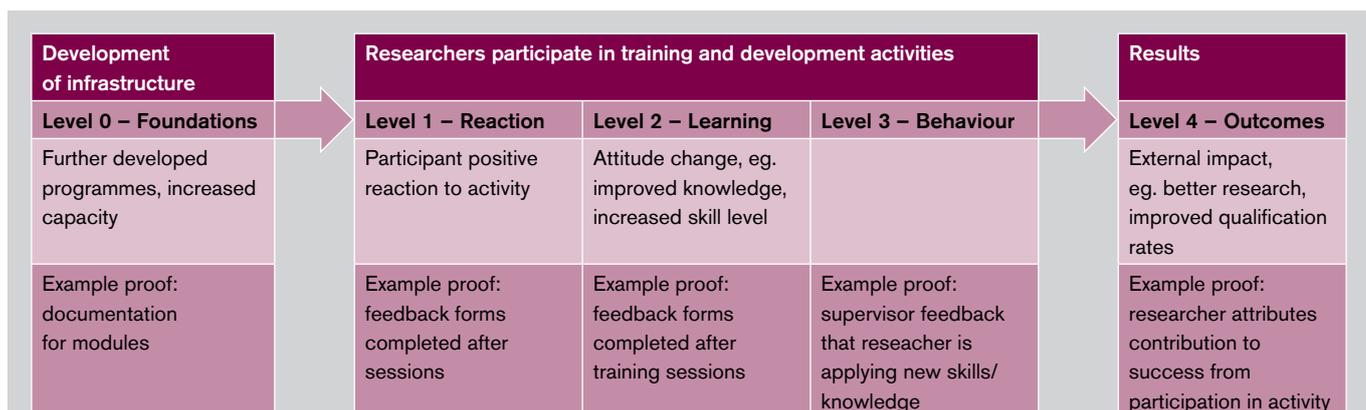


Figure 1: Schematic representation of the levels of the Rugby Team Impact Framework (after Bromley and Metcalf, 2012).

The evaluation strategy for the PGCARMS programme sets out a methodology to assess the success of the programme at all levels of the Impact Framework, to learn from mistakes made and to implement improvements as the programme progresses. The use of baseline, interim and completion surveys has been designed to assess participants' perception of skills development and achievements over time and therefore has potential to collect evidence of impact at Level 3 and 4 as well as collecting participant feedback. Now that many of the first small cohort of participants have completed the programme, we have been able to collect survey responses from them at all stages and carry out a longitudinal analysis of how doctoral researchers' perceptions of the programme changed over time.

Completion Survey Results

To encourage honest responses, no personal data was captured by any of the questionnaires sent to the researchers on the programme. This means it is not possible to determine whether age, gender or research topic had any influence on the answers given, or to identify if the same people who completed the baseline or interim surveys were those who completed the final survey. Fourteen researchers started the programme in 2011/12 and, by July 2014, seven had completed the PGCARMS programme. Of these seven, six filled in the completion survey. It is recognised that this is too small a population to draw convincing conclusions from, but analysis of their data has been useful to test our evaluation strategy.

The first question asked in both the interim and final survey was: *'How satisfied are (were) you with the PGCARMS programme (so far)?'* From Table 1, it can be seen that the level of satisfaction increased over the period of participation although the responses are not necessarily from the same individuals, and so only the general trend itself can be commented on.

<i>'How satisfied are you with the PGCARMS programme?'</i>	Total at interim survey	Total on completion survey
Very satisfied	0	1
Satisfied	2	4
Dissatisfied	4	0
Very dissatisfied	1	1

Table 1: Question one on interim and final survey.

The next question, *'Of the PGCARMS modules you took, which was the most useful and why?'* was designed to identify what participants most appreciated about the programme. Four of the six respondents to the completion survey mentioned that the most useful module was 'Introduction to Teaching and Learning for Doctoral Researchers'. Quotes in support of this included: *'good chance to discuss with people from different departments about teaching experience'* and *'external accreditation and likely to help with future career plans'*. Two respondents mentioned the placement module because: *'it gave me the opportunity to work on a research project giving me an insight into life beyond the PhD'* and *'it gave me some ideas for my own research'*.

The completion survey asked, *'Of the PGCARMS modules you took, which could have been better and why?'* This gave respondents an opportunity to comment on what hadn't worked so well. A variety of responses were received, with the only common theme around the fact that modules on statistical methods were not flexible enough to apply to doctoral research in varied topics.

When asked on the completion survey, *'What topic would you like to have seen included in the PGCARMS modules?'*, responses included: *'there were no modules which were directly relevant to my discipline'* and *'it appeared that the modules were created with only students from the school of social research in mind'*. The fact that many modules were not relevant to each participant's area of research was a problem noted for the first cohort and further evidenced through corresponding feedback to the Student Staff Committee.

Participants were asked to reflect positively on the course with the question, *'What was the best thing about the PGCARMS programme and why?'* which elicited a range of responses: *'introduced me to new tools I could use in my research and provided me with very useful teaching advice'*; *'self-reflective assignments...made me take a step back and really evaluate my work'*; *'meeting other students from outside of my department'*; *'great to get extra knowledge through courses which maybe wouldn't have done if not compulsory'*; *'the opportunity to broaden my horizons in terms of taking modules that I wouldn't have had the opportunity to engage with otherwise'*.

A number of weak areas had been identified from results to the interim survey so the completion survey again asked, *'Do you have any comments on weak areas of the PGCARMS programme?'* Limited module choice was mentioned by three of the six respondents to the final survey. One of these felt they had been forced into taking a difficult module which was not relevant to their studies and therefore *'it felt very much like a box-ticking exercise'*.

The questionnaire then asked, *'What do you think the impact of PGCARMS was on your overall student experience?'* which uncovered mixed feelings among those who had completed the programme, with four of the six respondents giving negative comments highlighting how difficult it was to complete the course alongside their own research commitments, for example *'quite stressful at times to balance the PGCARMS work with the PhD research'*. However, some positive aspects were also mentioned: *'nice to have an achievement prior to completing my thesis'*, *'I enjoy extending my knowledge'* and *'helped to put my research into real life context'*.

As PGCARMS was intended to help doctoral researchers develop their research skills, the question *'Do you feel you have all the skills you need to successfully complete your research?'* was asked in all of the baseline, interim and completion surveys to allow progress to be tracked over time (although the respondents are not necessarily the same population in each case so direct comparison cannot be made). It is hard to identify a trend from the results presented in Table 2, and it should be borne in mind that a baseline can be misleading as the participant may be unaware exactly what is required of them prior to starting their research and, even on completion of PGCARMS, the researchers may have some research to do before completing their PhD.

'Do you feel you have all the skills you need to successfully complete your research?'	Total from baseline survey	Total from interim survey	Total from completion survey
None of the skills	0	0	0
Some of the skills	2	3	2
Most of the skills	4	4	2
All of the skills	1	0	2

Table 2: Question repeated on all three surveys.

When asked in the completion survey, 'Would you recommend PGCARMS to others and why?', five out of the six respondents said 'yes', but all applied reservations such as: 'if it includes modules useful to them' and 'if they are looking to expand the range of methods/methodologies they might use during the PhD and in the future'. A couple of other positive points were mentioned: 'the interviewer for a fixed-term teaching contract I've just been offered was very interested in it in the interview!' and 'it's a good use of any extra time'.

In response to the last question on the completion survey, 'Have you changed anything in your approach to your research as a result of PGCARMS?', two respondents mentioned that learning about other research methods has been useful: 'I used NVIVO in my research which I wouldn't have done otherwise' and 'the narrative analysis module was particularly helpful in choosing my research direction...I have definitely picked up some skills along the way that have influenced my approach.' Another two respondents were less convinced they'd made specific changes but had gained more awareness in some areas: 'Maybe add the aspect of reflection and learn how to communicate my research with non-experts' and 'maybe teaching'. The remaining two respondents did not believe they'd changed anything in their approach to their research as a result of PGCARMS.

Discussion of Results

The results of this longitudinal analysis show that not only did satisfaction with the programme increase over time but for some participants both behavioural changes and positive outcomes are being attributed to PGCARMS. The survey results also delivered useful feedback on the programme content and structure which will be used to improve the programme for future cohorts.

It was useful to see that the modules participants most valued were those designed to develop transferable skills (teaching module and the placement) while the more academic modules such as those on statistical methodologies were criticised as they could not be made topical enough for the researcher's own requirements. This is difficult to address when providing a programme for such a varied group of researchers but the number of modules offered under PGCARMS will continue to be increased which should allay concerns about the limited choice and allow participants to tailor a programme which is of more relevance to them.

It is becoming more common that funded cohorts such as those who are part of Doctoral Training Centres are expected by Research Councils to participate in additional training such as PGCARMS and it is important to recognise the burden this places on researchers in addition to their own doctoral research. The fact that most of the participants surveyed could see the benefits of PGCARMS is a positive outcome, as is the fact that the 'best thing about the programme' reported in several cases were outcomes such as having met researchers from other disciplines and being introduced to new ideas. Without PGCARMS, these outcomes may not have been achieved.

When asked to judge whether they possess all the skills required to complete their research, responses fluctuated from participants perhaps displaying false confidence at the start of the programme, to a slight loss of confidence in their abilities by the time of the interim survey, followed by a mix of responses on the completion survey. This perhaps reflects a more mature approach to research with the recognition that there are many new skills to learn and apply. Therefore, the result is not interpreted as a failure of the PGCARMS programme aims.

Case Study of a PGCARMS Participant

One of the first cohort of PGCARMS completers volunteered to be interviewed for a case study about her experience with the programme. In this researcher's opinion, the best thing about PGCARMS was the opportunity to try out skills in settings other than her own research. Meeting researchers from other disciplines within an academic and focused environment rather than a social one also forced interactions which proved useful. The worst thing in her opinion was how the programme was initially presented. The module selection available to the first cohort was limited, so she had to try to find topics that she could potentially make useful. The selection in her second year was wider and the teaching module was particularly useful as it fed into her career development plans.

She had taken some stand-alone UGS courses in addition to PGCARMS, for example Time Management, and found these made her aware of different ways of doing things. The PGCARMS modules were more focused and structured with the feedback on one module assignment giving her ideas to apply to her own work. She found that after the UGS short courses there was no further need to engage with the topic in a more formal way. She believes both types of courses have value.

She was under some time pressure as a result of doing both PGCARMS and her PhD at the same time. When a deadline to do with the PhD came up she did have to juggle and prioritise that. However, she believes having the PGCARMS qualification shows she's done more than just a PhD and this will hopefully give her an advantage when looking for jobs as she will be able to present a wider skills base. She's pleased to have the academic recognition for this, especially for the work experience and teaching modules.

Conclusions

It is clear from the survey responses about the experience of this first cohort to complete the PGCARMS programme that their feelings changed over time to move from dissatisfaction with being forced to participate in a programme they didn't feel was relevant to them, to a more positive outlook on the experience when they had completed the programme and reflected on what they'd learnt. The longitudinal analysis as well as the case study interview undertaken with a participant, have delivered evidence that the PGCARMS programme has had some impact at both Level 3 (behaviour change) and Level 4 (outcomes) with participants reporting a range of positive outcomes. It is hoped a further

follow-up survey will be undertaken with this cohort once they have completed their PhDs and moved into employment.

As this cohort were the first to participate in the PGCARMS programme it was to be expected that issues would be uncovered and lessons have been learnt to make improvements for future cohorts. The choice of modules has already been increased to support the wider range of subject backgrounds participants come from. The size of the participating cohorts has increased and the intent is to continue this longitudinal analysis to assess ongoing satisfaction with the programme.

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