National Centre for Research Methods Report

Consultation on Training Needs in Advanced Social Science Research Methods

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Contents

List of Acronyms

ADRN	Administrative Data Research Network
AHRC	Arts and Humanities Research Council
AQMeN	Applied Quantitative Methods Network
ATI	Advanced Training Initiative
ATN	Advanced Training Network
CASS	Courses in Applied Social Surveys
CEMMAP	Centre for Microdata Methods and Practice
CPD	Continuous Personal Development
DTC	Doctoral Training Centre
DTP	Doctoral Training Partnership
ECR	Early Career Researcher
EPSRC	Engineering and Physical Science Research Council
ESRC	Economic and Social Research Council
FRL	Future Research Leader (ESRC Funded)
HEI	Higher Education Institution
LEMMA	Longitudinal Effects, Multilevel Modelling and Applications
MOOC	Massive Open Online Courses
NCRM	National Centre for Research Methods
RDI	Researcher Development Initiative
ReStore	An NCRM hosted sustainable web sources repository
SRA	Social Research Association
TCB	Training and Capacity Building
TNA	Training Needs Analysis
UKDS	UK Data Service

Executive Summary

One of the initial roles of the Training and Capacity Building (TCB) directorate of the National Centre for Research Methods (NCRM) in its current funding period (2014-2019) is to consult and liaise with key stakeholders in the UK training landscape to identify current and future training needs in advanced social science research methods. Given the significant recent and forthcoming changes in the UK methods training landscape, the emergence of new data and methods and the NCRM starting a new round of a broad-ranging training programme this is an appropriate time to take stock and to conduct a training needs assessment including a strategic review of advanced methods training in the UK.

The aim of this consultation has been to seek the views of the social science research community on current and future provision of advanced methods training in the social sciences. The focus has been on questions not only of *where* capacity may be lacking but also of *how* identified under-capacity should best be addressed and be strengthened. The report is intended to inform the content and delivery of the NCRM training programme as well as the Economic and Social Research Council's (ESRC) advanced training strategy.

This broad-ranging consultation consists of the following components, covering a range of target audiences across all career stages, sectors and geographic regions: 1. consultation with key ESRC and non-ESRC training stakeholders via personal interviews; 2. consultation with UK PhD students (both ESRC funded and others) via an online survey; 3. consultation with early career researchers via an interactive workshop supported by the ESRC Future Research Leaders scheme; 4. consultation with the professional social science research community via an online survey jointly with the Social Research Association (SRA) and 5. an audit of the use of NCRM training and resources.

Coordination across the UK training landscape in advanced methods

Many of those consulted advocated more co-ordination of the training offered by key providers, such as Doctoral Training Centres (DTCs), Advanced Training Initiative (ATI) grant holders, NCRM, the Social Research Association (SRA), and others. One way of achieving greater coordination may be via a loose network of the various elements of the training landscape. The nature of such a network would allow facilitating and co-ordinating spaces for creative interaction across diverse training providers and users, across disciplines, across career stages, and across sectors. Though superficially attractive, disadvantages of a highly centralised training system were noted. Over-reliance on centralised control and direction risks stifling innovation around new forms of training and topics as well as hindering a fast and flexible approach to respond to changing needs that emerge over time. As with innovation more generally, new thinking is best facilitated within an environment that allows space for risk-taking and serendipity. Thus, even if a central entity with the remit to direct the implementation of an agreed strategic plan were to be implemented, it is doubtful that it would be as effective at promoting innovation compared to a looser network. A less formal network may be based around an annual meeting of key training stakeholders, facilitating coordination and sharing of information.

Training needs and topics

The consultation identified training needs in both existing and emerging areas of research methods. The following broad topics were highlighted across the different elements of this consultation and are consistent with work done by ESRC to identify capacity needs: big data/digital data as new forms of data (includes accessing, e.g. via crowdsourcing, storing,

managing, handling and analysing such data, as well as issues of data security and ethics), biosocial data, new forms of longitudinal data and their analysis, survey methods, in particular interviewing and longitudinal data analysis, ethics, impact evaluation methods (both quantitative and qualitative), interdisciplinary research and mixed methods and methods for assessing research impact. Respondents also emphasised that core training in established areas should not be neglected in favour of the novel and that courses may need to be repeated at different time points and locations. The importance of modular courses was noted so that skills can be developed incrementally through a series of progressional components from introductory to more advanced levels. Despite the focus on advanced training, introductory courses in more advanced areas were thought to be crucial (especially in relation to quantitative methods). Consultees noted the importance of the link between research and training, which becomes particularly important in emergent areas such as big data, where training is required to facilitate research and vice versa.

Mode of training and training delivery

Face-to-face training is identified as being by far the most important mode of training delivery. The development of online learning is changing the training environment, although as a complement to (rather than as a replacement for) face-to-face learning. There is perceived to be a clear need for high-quality online learning resources, although these require time, staff and financial resources to be developed to a sufficiently high standard. The consultation highlighted in particular the importance of blended learning that includes interactions, dialogue and discussion and where learners interact within a community of other learners. Pedagogy more generally is changing the learning environment because of increased awareness and application of the idea of active learning which has the potential to change *how* people learn (as distinct from *what* people learn). Masterclasses, one-to-one mentoring and learning from experts, working with students in in-depth ways and providing post-course support, as well as peer coaching or 'sandpits' - in which learners interact with others who have experience of a specific method and learn from each other – were all mentioned as further examples of evolving learning practices.

PhD students, early career researchers and training throughout the career trajectory:

Some challenges to the take-up of advanced training for early- and mid-career researchers were identified. The variability of time dedicated to training reported by holders of Future Research Leaders awards, and their difficulties in ring-fencing time for training was noted. Limited knowledge about the availability of training opportunities was identified as a barrier to take-up among some groups. Advice on training needs given to PhD students by supervisors and to Future Research Leaders by mentors offers a means of addressing some of these issues, although the extent to which individual needs assessment takes place appears to be variable. There is also a need for strategic thinking about how to upskill the large community of social scientists at later stages in their careers, especially in relation to emergent methods and new ways of working, such as in digital methods and in multidisciplinary research. In this context the issue of 'training the trainers' was also noted. Academics responsible for training the next generation of social researchers require training in both content and styles of delivery.

Several key findings of this consultation support the results of previous NCRM consultations using different methods and targeting different groups, providing reassurance that the findings have long-term relevance.

A summary of the main recommendations is provided in section 10 of this report.

1 Introduction

One of ESRC's key roles is to facilitate and promote training for social scientists in robust and up-to-date research methods so they can undertake high-quality research to address pressing societal and policy-related research questions. ESRC-supported methodological training is now being delivered at undergraduate, postgraduate and at professional-development levels. Much of the undergraduate and postgraduate training is pitched at the introductory and intermediate levels, focussing on generic research skills and foundational methods training. This report focusses on the training needs at the more advanced level, including introduction to advanced areas. Such training is typically delivered at PhD level, early career and beyond. The ESRC Postgraduate Training and Development Guidelines (2009) consider advanced training to be "additional to core training" and an "essential element of broadly based research training, so as to serve specialist and continuing needs". It is recognised that some advanced training is discipline or subject specific, whilst other training may have a wider application.

In recent years the provision of advanced methods training in the social sciences in the UK has seen significant changes with many of the ESRC-funded centres and training initiatives coming to an end or experiencing substantial changes and new schemes coming on stream. Initiatives such as the Researcher Development Initiative (RDI) have ceased, while the Applied Quantitative Methods Network (AQMeN) has a different complexion in its second phase. The NCRM, a key provider of advanced methods training, has undergone significant changes, moving away from a hub and node model to one consisting of joint research and training and capacity building Directorates. The overarching objective of the NCRM TCB Directorate is to enable UK social scientists to learn about the latest developments in state-of-the-art methodological practice and to acquire the skills to use the methods effectively in their own research. New training initiatives have also been funded by ESRC. For example, since 2011 the Doctoral Training Centres (DTCs) were tasked with opening up a limited number of their courses to deliver advanced training to PhD students from across and beyond the DTC network, although this scheme ceased to exist in 2015. The DTCs will be succeeded in October 2017 by Doctoral Training Partnerships (DTPs) and Centres for Doctoral Training (CDTs). They will not be required to open up their training beyond the DTP and CDT network, but the networks are expected to be larger and to include local institutional 'pockets of excellence'. A new initiative has also recently been funded, the ESRC Advanced Training Initiative (ATI), which has the aim of developing and delivering high quality, nationally leading advanced training short courses in the social sciences. This initiative is designed to augment the provision of NCRM and the DTCs, and to facilitate social scientists accessing high quality advanced training courses. Training needs have themselves started to undergo significant changes with the emergence of new sources of data, including but not limited to administrative and social media data, requiring both new skills and new ways of working. In this context it is noteworthy that the first two CDTs to be commissioned in the new framework will be in the areas of 'biosocial research', and 'new forms of data'.

One of the initial tasks of the NCRM TCB Directorate of the NCRM is to consult and liaise with key stakeholders in the UK training landscape to identify current and future training needs in advanced methods. Given the significant changes in the UK methods training landscape and the NCRM starting a new round of a broad-ranging training programme it was

an appropriate time to take stock and to conduct a training needs assessment, following previous assessments and consultations in 2005, 2008, 2011 and 2013. This report is the product of a series of comprehensive consultations undertaken during 2014/2015. The report will underpin the content and delivery of the NCRM training and capacity building programme, and will inform ESRC's advanced training strategy, including the commissioning of the DTPs. The NCRM TCB strategy is also informed by the Centre's research work packages on current pedagogical research on methodological learning, including both face-to-face and online learning activities.

The objective of the consultation has been to seek the views of the UK social science research community on provision of advanced methods training in the social sciences. The focus has been on questions not only of *where* capacity is lacking but of *how* identified under-capacity can best be addressed and strengthened.

The report is based on consultative dialogue with a range of target audiences across all career stages, sectors and geographic regions:

1. Key ESRC and other training stakeholders via personal interviews, including representatives from academia, government, charity/not-for-profit organisations and the private research sector and ensuring geographical representation from England, Northern Ireland, Scotland and Wales.
2. ESRC and other PhD students via an online survey
3. Early career researchers (ECRs) via an interactive workshop conducted with ECRs funded by the ESRC Future Research Leaders scheme
4. The professional social science research community (i.e non-academic researchers) via an online survey jointly with the Social Research Association (SRA)
5. An audit of the use of NCRM training and resources between April 2013 - March 2015

Whilst it is recognised that training needs can vary significantly within and across social science disciplines and that methods training should be provided with examples from and applications to particular disciplines, this report does not identify discipline specific training needs. The ESRC have recently published their Postgraduate Training and Development Guidelines 2015 which sets out their expectations for the content and delivery of postgraduate training and the minimum requirements that research organisations will need to meet to provide high-quality core training across all areas.

The remainder of the report is structured as follows. First methods, target groups and results of previous NCRM consultations on training needs are briefly reviewed. The methods and analysis samples of the current consultation are outlined. Then, the results of the consultations, workshops and surveys are presented and discussed - structured according to the groups consulted. The conclusion provides a comprehensive summary of the main results, integrating the key findings across groups. The final section makes recommendations for future activity. The appendix provides details on questionnaires, analysis samples, information on the key stakeholders consulted and ethics approvals.

2 Previous NCRM Reports on Training Needs

NCRM has conducted consultations on the provision of advanced training in 2005, 2008, 2011 and 2013. A consultation was also carried out in 2004 prior to NCRM's establishment in order to guide its strategic direction in terms of both research and training (Durrant and Lang, 2004). Two consultations have explored the training needs of the academic community across the career trajectory from PhD student to mid-career and senior academic (Wiles, Durrant, DeBroe and Powell, 2005; Moley and Wiles, 2011) and one has explored the training needs of the professional social research community (Wiles, Bardsley and Powell, 2008). The 2013 consultation explored the training environment and how national needs for advanced training should be assessed and addressed (Moley, Wiles and Sturgis, 2013).

A wide range of methods has been employed across these consultations. Direct comparisons between these reports may therefore be problematic. Comparison is further complicated by the fact that the training environment has changed markedly since the first consultation commenced. Bearing these caveats in mind, the 2005 and 2011 consultations comprised online surveys of PhD students and holders of ESRC grants as well as a content analysis of job specifications for academic social science researcher job vacancies. The 2008 consultation with the professional social research community comprised an online survey to members of the Social Research Association (SRA), telephone interviews with ten employers of social researchers across the sector and an analysis of researcher job vacancies. The 2013 consultation, which focused on more strategic training issues, rather than areas in which training is needed, comprised telephone interviews with 16 key stakeholders as well as an assessment of the advanced training landscape in 2013.

In terms of topics of training need, the 2005 consultation identified training needs in the following areas: interviewing; qualitative analysis; statistics and quantitative methods (at all levels); use of statistical software and longitudinal data analysis. The 2011 consultation identified training needs in quantitative methods, primarily at the introductory level and for qualitative methods at more advanced levels. In contrast to the 2005 consultation a need for training in mixed methods was also identified and respondents, particularly PhD students and early career researchers, identified the need for skills across a range of methodological approaches. This need for training across the range of methods was also identified in the consultation on training needs of the professional social research community. While similar training needs were identified among non-academic researchers, especially in relation to quantitative methods, survey design/analysis and evaluation methods, the need for training in deliberative and consultative methods was also identified.

A consistent and pressing need for training in quantitative methods across all levels has been identified in all previous consultations, although it has consistently been emphasised that this should not be at the expense of training in other methodological approaches, in particular those in qualitative methods. An increasing need for training in mixed methods and for researchers to have skills across a broad range of methods has been repeatedly noted. Previous consultations also concluded that training is an issue that needs to be considered across the career trajectory and not just at key points, such as during PhD study and early in a career. Identifying ways to facilitate updating of methodological skills for mid-career and senior researchers has been identified as a challenge which is often overlooked.

As regards training delivery, traditional face-to-face training has been identified as the preferred mode in all previous consultations. The importance of regional training has also been noted as important for training to be accessible to researchers regardless of geographical location. This has been identified as particularly pertinent for researchers in Scotland and Northern Ireland. While an increased interest in online training emerged across consultations, and its advantages have been repeatedly noted, actual usage has been reported to be low, even as late as 2011. Concerns about the quality of online training and the need for its development have been expressed. The 2013 consultation noted that the development of good quality online training requires considerable time and resource investment, a point echoed in the review of virtual learning environments commissioned by ESRC (Parkes et al., 2013).

The training environment changed markedly over the period during which these reports were published and the 2013 consultation described the advanced methods landscape at that time, noting that much of the provision was (and continues to be) provided by NCRM and the DTCs (with the recent addition of the ATI). The 2013 consultation made several recommendations: that assessments of training needs drawing on the research community and ESRC's strategic priorities should continue to be conducted; that ESRC support for advanced methods training providers should continue as it was unlikely to be adequately provided by the market; that the fees structure should reflect the training needs with the research community with a graduated fee structure being effective as a means to target certain groups; and, that online training has the potential to create a rich learning experience, especially when combined with face-to-face learning but that significant resources are necessary for their development.

3 The Consultation – Tailored Approaches and Analysis Samples

The consultation sought to elicit the views of a broad range of stakeholders in the UK training landscape, which included both users and providers of training and those with expertise in advanced training methods, ranging from PhD students and early career researchers to senior experts and across all sectors and UK countries. The different groups required tailored approaches and the questions asked were appropriate for each group or individual. The consultation included the following components:

3.1 Personal interviews with key training providers

Key roles and individuals in the UK social sciences research methods landscape were identified. Our main consideration in selecting those whose views we wished to canvass was to maximise breadth of opinion, while targeting researchers who were likely to have an expert view. The group of key stakeholders included representatives from academia, government, charity/not-for-profit organisations and the private sector. There was geographical representation across England, Northern Ireland, Scotland and Wales. In total 21 individuals were interviewed between February and May 2015. The key training stakeholders identified included representatives from the following groups: ESRC DTC Directors, major ESRC training investments including the ATI, NCRM phase 3 node Directors, UK Data Service, Higher Education Institutions delivering TCB or Continuous Personal Development (CPD) programmes, a methods seasonal school, the Higher Education Academy, ESRC strategic advisors, the ESRC training and skills committee,

experts on using online resources for training, the TCB group of the ESRC Administrative Data Research Network (ADRN), learned societies, government, charity/not-for-profit organisations, the private research sector and a non-social science discipline. Individuals who fitted these key roles were then identified (see Appendix A for the full list of interviewees, their roles and information on how the interviews were conducted). Some individuals met more than one inclusion criterion.

3.2 Online Survey of PhD Students

An online survey was set up in order to obtain the views of ESRC DTC students (the ESRC currently funds about 2800 PhD students), self-funded PhD students and social science doctoral students with alternative funding. There is no sampling frame available to contact this population directly. Two methods of invitation distribution were used. Firstly, the ESRC distributed details of the survey to all DTCs via their newsletter in March 2015 and a reminder in April. DTCs were asked to send an email containing the survey link to all PhD students at their Higher Education Institutions (HEI) (not only DTC students). The survey was also highlighted at the Final Year Conference for ESRC DTC students in April 2015. This group were of key interest as they are part of the relatively new ESRC DTC system and as final year students are likely to have needed and undertaken methods training, particularly advanced training. The sampling methods are not random and it seems unlikely that all of the DTCs emailed the survey to their students (despite reminders to ESRC and DTCs) as only 12 of the 21 DTCs were represented amongst the survey participants. A total of 374 students completed the survey (excluding partial completions). The majority (87%) were registered as full-time and the remainder (13%) as part-time. The majority of respondents had funding for their PhD, with 180 (48%) being funded through an ESRC Doctoral Training Centre (DTC) and 133 (36%) having another source of funding. There were 61 (16%) self-funded students. At least 23 Universities were represented. (Further information about the design of the survey and the background of respondents can be found in Appendices C and D.) Additionally, in April 2015 members of the NCRM team attended the ESRC final year conference for DTC students in order to run a workshop session entitled: "(Still) developing yourself as a researcher: methods training over the academic life course". Discussion with the students supported the findings of this survey, with some additional salient issues raised which are indicated in the analysis.

3.3 ESRC Future Research Leaders Workshop

The ESRC has so far funded three cohorts of Future Research Leaders (FRL) with the 4th cohort starting later in 2015. FRL's funding is to support the transition from Post-Doctoral research to academic tenure and so is aimed at early career researchers (ECRs) to support them in a research plan of up to 3 years. Future Research Leaders have an academic mentor, and part of the funding remit is to include a detailed training and development programme. As such, the FRL are a key group of ECRs in terms of their training needs.

In February 2015 the ESRC held an information and training event for FRLs and members of the NCRM consultation team attended in order to run a workshop session entitled: "(Still) developing yourself as a researcher: methods training over the academic life course". About 70 FRLs attended the workshop (48% out of a total of 148 registered with ESRC). In this workshop, participants reflected on their methods training to date and also their current and future training needs. The workshop provided a short introduction to NCRM, some 'quick fire' questions (where FRLs held up green 'yes' or red 'no' cards) and group discussions which

were written down on flipcharts and then fed back to the main group. (An outline of the session materials is in Appendix G.)

3.4 Social Research Association (SRA) Online Survey

NCRM sought to include the views of the professional social science research community (i.e. non-academic researchers) within the training needs consultation and this was achieved by working with the SRA. The SRA aims to provide a networking function for people engaged in social research across a wide range of organisations, including public, private and voluntary (http://the-sra.org.uk/). A set of consultation items were included in the SRA's annual members' survey in autumn 2014. (see Appendix F for the survey questions). The survey was emailed to 690 members and there were in total 209 responses (30%). (See also Appendix E for further background of the sample composition.)

3.5 NCRM training and resources

Over the last ten years NCRM has developed a rich body of methodological papers and online resources as outputs from a wide range of methodological research projects. NCRM has further developed and run a wide range of short courses and other training and research events in different advanced research methods areas. To identify areas of training needs it is sensible to undertake an audit of the frequency of the use of this material and the level of participation at the training events. Hence, an audit of the use of NCRM resources was undertaken for the period from 1st April 2013 to 31st March 2015. This included three main areas: NCRM course and event attendance and highest demand courses; NCRM training and events database use; NCRM (including ReStore) online resources views and use.

4 Results of Consultation with Key Training Providers

4.1 UK Advanced Training Infrastructure

Interviewees were asked to identify who they felt were the 'key players' in methods training in the UK. A broad range of institutions, groups and investments were identified; these can be seen as comprising the advanced training infrastructure. These included NCRM and the DTCs as well as particular academic institutions with a reputation for research methods training (Universities of Southampton, Manchester, Edinburgh, Essex, Oxford, Surrey, LSE, Bristol, Cardiff) and past and current ESRC training investments (AQMeN, Courses in Applied Social Surveys (CASS), Centre for Microdata Methods and Practice (CEMMAP), Longitudinal Effects, Multilevel Modelling and Applications (LEMMA), Q-step, the Data Infrastructure Group including for example the UK Data Service (UKDS), Cohort and Longitudinal Studies Enhancement Resources (CLOSER), Centre for Longitudinal Studies (CLS), Understanding Society (the UK household longitudinal study) and the Administrative Data Research Network (ADRN), and others). One interviewee identified multiple Research Councils, namely the ESRC, the Arts and Humanities Research Council (AHRC) and Engineering and Physical Research Council (EPSRC), who are engaged together in digital economy research and training as key players, particularly the digital economy investments in some Centres for Doctoral Training (such as at the University of Southampton's Web Science CDT). The summer schools at the Universities of Essex, Oxford and the Scottish Graduate School of Social Science were also identified. Other organisations identified were learned societies, professional organisations and research organisations who provide

advanced training (Royal Statistical Society, Market Research Society, NatCen and Social Research Association).

4.2 Challenges in the Current System

A primary issue identified by a number of interviewees was the lack of explicit co-ordination of training. Training was identified as 'patchy' in some areas and repetitive in others. Duplication of courses was noted and some training was viewed as being of poor quality. One interviewee noted that the market is becoming 'crowded' and that it is not easy for researchers to identify who is the best provider and what training would best meet their needs. While many interviewees argued in favour of the need for more strategic alignment and co-ordination of training, this was not universal. Others saw problems in a more coordinated approach. First, it is not clear who would have responsibility for providing the co-ordination function (although some interviewees saw this as a potential role for NCRM discussed further below) and second, a more top-down approach might stifle innovation:

> *"I'm not sure if they are co-ordinated and I'm not sure who is charged with that, although I'm also not sure if we should expect them to be co-ordinated. … The trouble with having it all completely co-ordinated is that you lose some of the wonderful quirkiness which you did get from NCRM's nodes' training courses, because it was people running them, because they wanted to, because they were advancing in those areas and doing really interesting work, and because they knew that people would be interested in that."*

Consultees also expressed the view that more attention needs to be paid to challenges in the take-up of advanced training for early- and mid-career researchers. One interviewee noted that these groups are more resistant to training. There may also be a need for more strategic thinking about how to upskill the large community of social scientists who have been in their careers for some time. This is especially in relation to emergent methods and new ways of working, such as in digital methods and in multidisciplinary working (NB some of this work is already undertaken by NCRM). In a similar vein, one interviewee noted that there is scope for providing more training for researchers working outside academia, particularly given that many PhD students end up working in non-academic research settings.

Specific Training Issues for Doctoral Students

Interviewees were asked "How well do you feel the current DTC provision of advanced training is working and what could be improved? It was noted that ESRC originally supported the DTC Network so that students based within a DTC could attend particular courses at other DTC sites and that students outside of the DTC network could attend particular training at a DTC institution. However, some limitations to the system of DTC provision were identified and it was noted that DTCs across the UK do not currently operate well as a *system*. In practice students are reluctant to attend courses at other DTCs. In part this was identified as a problem of information provision and communication about course availability to students and supervisors. Interviewees also noted that in universities without a DTC, and/or in geographical locations without a DTC in close proximity, staff and students lacked easy access to training. One interviewee noted that staff and students can 'really struggle' in such institutions. One interviewee commented:

> *"There's a lack of management in terms of information – the [NCRM] website needs to be managed on a daily basis, drawing people's attention to the website and*

courses rather than just keeping it up to date in the form of a 'library'. … There could be more focused sharing of what DTCs are doing; it's a shame that when courses for DTC students are put on, there aren't many students from other DTCs that attend. … There are some issues around the level of information about individual courses on the website and whether it contains enough information for potential learners as well as some uploading issues with not all DTC courses clearly labelled as such."

(NB: The NCRM database is made available to all social science training providers but, apart from basic moderation, NCRM is not able to direct what courses and details providers upload.)

As well as communication issues, it was noted that greater oversight of what was happening in DTCs would be useful and interviewees identified a need for more strategic thinking about the DTCs as a network. Other interviewees discussed the training DTCs are providing. One interviewee indicated that the assessment of training needs is not sufficiently strategic and that the training that is provided is sometimes based on the availability of people to provide courses and their interests rather than "a strategic needs assessment of the student body". This interviewee noted the need for identification of students' training needs within individual DTCs but also across the whole network. There was some questioning of whether the current level of training and individual training need assessments for DTC students are adequate. (It should be noted in this regard that, as part of the commissioning of the DTPs, ESRC will be placing more emphasis on training needs analyses (TNA) and DTPs will be required to report annually at an aggregate level on the needs identified and how they will be addressed. ESRC will also conduct an annual dipstick testing DTPs' TNA processes. Please also note that as part of this report the PhD social science student population was in fact consulted on their training needs and barriers to taking up training via an online survey, see section 5 for results).

4.3 Future Possibilities: Strengthening the Infrastructure

There was a widespread view among interviewees that a form of greater co-ordination of training is necessary. Interviewees noted that there needs to be a clear strategic approach and the creation of a visible training infrastructure that operates as a coherent network rather than a group of disparate providers. The Advanced Training Network (ATN) was developed by the ESRC in 2011, comprising NCRM, DTCs and originally the RDI, later on the ATI. The aim of ESRC was to create an integrated, national network of advanced training and to facilitate access to that training for all social science postgraduate researchers. Interviewees noted, however, that the advanced training network does not currently operate as a network:

"The ESRC launched the advanced training network, but it's not visible from the outside what that network is, and in a sense it doesn't operate as a network in that it doesn't link those centres of expertise together. Having a more easily identifiable training network that has a very strategic approach to training delivery could be quite useful, and that could be underpinned by much clearer guidelines around what is advanced and what isn't within a disciplinary framework. Pulling together different centres of expertise would help with that and give a stronger sense of a cross-UK infrastructure"

Scope was identified for meetings between key providers in order to undertake proactive planning to identify the needs of the research community (in all sectors), exploring who is

providing such training and what further needs are currently unmet. The Vitae Researcher Development Framework (2010) was identified as a potential tool for understanding and interpreting the core competencies in relation to advanced methods training required by researchers. The likely benefit of strategic thinking on these issues was broadly noted. It was felt that there is a need for funding of priority areas in which unmet needs are identified.

One interviewee noted that while greater clarity about the role and responsibilities of different providers within the Advanced Training Network is needed, it is not clear who, if anyone, should be responsible for an overall co-ordinating role:

> *"This would depend on the meaning of co-ordination; ensuring there are no gaps, developing programmes of training etc. would be a huge undertaking. I'm not entirely sure they have to be brought together actually. Obviously we don't want overlap and duplication … but it's hard to envisage the sort of entity that would bring all of these things together; the ESRC are not involved in hands-on provision, DTCs tend to do their own thing and NCRM's role is to push forward advanced methods"*

While co-ordination across the entire Network may be complex, interviewees felt that there was scope for developing mechanisms for greater liaison and co-ordination between NCRM and DTCs as the main players in the provision of training to academics. It was also felt that the roles and responsibilities of these key players needs to be made 'crystal clear' to avoid expectations from the community about what is being provided in terms of co-ordinating training, as well as what is actually feasible.

One interviewee saw a need in getting community consensus on quality indicators for advanced research methods (although it was unclear on how to do this in practice).

4.4 Capacity Building Strategy

Interviewees identified the need for changes to models of advanced training provision both to strengthen the infrastructure and to build capacity. Several interviewees noted the desirability of training to be modular, rather than one-off courses, so that learners could build on their skills incrementally. It was suggested that training provision should also comprise introductory topics in some important areas, such as some quantitative methods and emergent methods. One interviewee identified the need for formal accreditation of courses so that one-day courses in specific topic areas could build on each other into some type of formal accreditation. It was noted that this would be useful for researchers as well as employers. It would mean that there was some form of official recognition of skills gained rather than simply a list of courses attended. There are parallels here with the idea of a 'competency framework' as found in the civil service (Civil Service Competency Framework, 2012-2017).

Training provision that would allow training to become embedded through post-course mentoring or through coaching and support 'at your elbow' as skills were put into practice, were also identified as desirable, although resource implications and time commitments would need to be carefully considered. Some interviewees argued for a move away from one-off courses that seek to impart skills through teacher-based learning, towards working with students in in-depth ways and providing post-course support. However, this model may be less relevant for PhD students who should be receiving ongoing support from their own institution. Some noted the development of schemes that would allow learners to continue working together and supporting each other after a course. As part of this, two interviewees

highlighted the importance of a focus on the pedagogy of training. One of these interviewees emphasised the importance of 'training the trainers' (i.e. those who teach research methods) and argued for a pedagogically-focused initiative for those who manage and teach advanced training. NCRM's research on the pedagogy of methodological learning (http://pedagogy.ncrm.ac.uk) as well as that on quantitative methods pedagogy (http://www.ncrm.ac.uk/research/WP6/wp6.php) were identified as important in contributing to the knowledge-base in this area. This interviewee argued that the ESRC could have a key role in funding networks and conferences to enable people involved in methods training to get together and learn from each other. (NB: NCRM is already engaged in such activities, see for example the ESRC Research Methods Festival). One interviewee also saw the potential for capacity building from working intensively with key talented and enthusiastic individuals as well as working with research centres.

Other barriers to capacity building were identified as marketing, accessibility and charges for courses. Clearly, appropriate marketing of courses is important as are issues of geographical location to allow access for different groups of people. Improving systems of communication between ESRC training investments was considered to be crucial. The issue of charging was raised, especially for people in commercial organisations for whom fees are higher. Not charging or keeping charges to a minimum were identified as potentially useful in increasing uptake among the research community. The need to have clearer links between academic and professional research, and the various research communities was also argued to be important. This was seen as important to enable researchers from different sectors to learn from each other. It was noted that opportunities need to be planned for this to occur as it is unlikely to happen spontaneously.

4.5 Areas of Training Need

In considering advanced training needs, interviewees noted that core training in established areas of research methods should always have a place; training on the new and emergent areas should not be at the expense of continuing training in established social science methods. While one interviewee emphasised the importance of researchers having a breadth of knowledge about methods and not specialising too early, several interviewees expressed the view that a 'tick box' approach to training is inappropriate and can result in developing researchers who have knowledge about techniques but not a deeper understanding of when and how to use and interpret them. One interviewee stated the importance of training providing creative spaces to enable learners to think about research questions and research problems and to generate methods to address these:

> *"We need to think about what fascinating, important, pressing problems there are that we want answers to and then think about how on earth can you generate meaningful data in creative ways, and we need to because some of the problems facing us aren't knowable with the old kinds of methods. We need to encourage people to provide training that is around that kind of creative thinking."*

Interviewees identified a wide range of specific topics as 'training needs' in research methods. It was observed that there is considerable overlap between research and training needs and that areas identified in the 2015 NCRM Research Needs Assessment (Luff et al, 2015) are likely also to represent training needs. The training needs identified through the key stakeholder interviews have been categorised into seven broad areas. These are not intended to be mutually exclusive; indeed there is considerable overlap between them. The

areas are: digital data; general survey and statistical methods; interdisciplinary research and mixed methods; evaluation; impact; creative qualitative approaches; researcher skills.

4.5.1 Digital Data

The topic identified most frequently as a training need was that of the collection and analysis of various forms of digital data where a skills gap was highlighted. Several interviewees identified 'big data' as an important emergent topic. The challenge was identified as being storing, managing and handling big data, including issues of cybersecurity, as well as its analysis. As one interviewee noted:

> *"We're not just talking about methods for analysis but being able to use and manage and handle big data, having a thorough understanding of the principles of data linkage and the complexity of working across a range of different types of data. We need more complex methods of looking at longitudinal data. With the emergence of big data, the complexity of causal pathways that can emerge in certain areas means we need better techniques for understanding issues around endogeneity and heterogeneity and other complexities of working with a large data set."*

In terms of the analysis of big data, one interviewee argued that there was an 'urgent need' to provide training in the range of appropriate analysis packages such as R, Stata and in data mining techniques. Techniques for accessing big data were also highlighted as a training need, such as crowdsourcing and 'grating' data from websites. The accessing and analysis of social media data was widely identified as a topic for which there are high levels of demand; much of this involves training in qualitative methods. It was noted by one interviewee that a single fixed course would not address the needs of learners because it would need to cover a range of methodological approaches (both qualitative and quantitative) and will require researchers to have a flexible skill set. Another researcher stated that 'social media data' as a label is unhelpful as it 'silos' social media data when research and training in this area should focus on cutting across multiple sources of data. Both real time analytics and the internet of things (the latter is the focus for £40M RCUK investments in digital economy) were identified as potential training topic areas.

Several interviewees noted that training in this area is potentially problematic in that the research has not necessarily caught up with the potential that big data provides. One interviewee expressed the importance of exploring the epistemological issues focusing on what sort of knowledge these data provide before launching into training researchers in 'how to' access and analyse such data. As one interviewee commented:

> *"The reason we're not up to teaching these emerging methods is because we're not up to doing them yet; the research needs to be done before you can teach it."*

4.5.2 General survey and statistical methods

Several interviewees noted the importance of maintaining introductory quantitative methods courses. Such courses for experienced qualitative researchers were identified as particularly important. The provision of good quality quantitative methods training was noted as crucial. Interviewees also identified the need for training in the use of existing longitudinal data sets. One interviewee saw potential for course providers to look at how datasets that are already produced can be used and for building that into training. Particular quantitative techniques that were highlighted by one interviewee as areas of need were latent variable methods for

longitudinal data, such as growth curve analysis and semi-parametric group-based modelling. One interviewee also identified the need for training in the construction and use of artificial, synthetic or simulation data and stated the importance of these in understanding administrative data.

4.5.3 Interdisciplinary research and mixed methods

Interviewees noted the importance of interdisciplinary research and of working with other disciplines and outside the social sciences; some training needs were recognized in relation to collaboration and teamwork when teams are drawing on a range of methods. As well as training in working alongside other disciplines, a training need was identified in making use of different types of data and employing mixed methods. In particular the growing use of collecting and using biomedical data alongside social data was highlighted as an important training need. One interviewee noted the lack of comparative research and felt that this reflected a lack of training in the topic. He felt that there was scope for regional comparative research to be conducted, drawing on both qualitative and quantitative data, and that training in comparative methods would stimulate this.

4.5.4 Evaluation

Several interviewees felt there was a need for training on evaluation methods of policy interventions. One identified an interest in quasi-experimental designs and quantitative impact evaluation methods while another stated the importance of training that integrates quantitative evaluation of 'what works' alongside qualitative evaluation of why it works. Training in advanced evaluation techniques was identified as a significant gap:

> *"Advanced evaluation techniques covering things like measuring and impacting on behaviour, logic modelling, randomised controlled trials in social science, social policy research. It's a growing area, there's a huge appetite for that in Government and there's a dearth of providers and people aren't coming out of University with that training."*

4.5.5 Impact

Another area of training need identified was in methods for assessing research impact. Training in methods for gathering evidence of impact and how research reaches the end user was viewed as important. As part of this topic, several interviewees noted the importance of participatory approaches to research which encourage public participation in research and the co-production of research. Action research was considered to be an additional training need. The importance of these areas of training need were argued to be to maximise impact and in order for research to 'make a difference'.

4.5.6 Creative Qualitative approaches

Several interviewees discussed the importance of qualitative training in relation to social media analysis (identified above). One interviewee noted the importance of training in creative qualitative methods, such as visual methods and sensory methods, and felt that there is considerable scope for that to be expanded. They noted that there have been considerable developments in creative approaches but that training is needed to build on the momentum around those developments. Another interviewee identified training needs in advanced ethnography. They argued that there has been, appropriately, considerable investment in quantitative methods and that there needs to be investment in qualitative methods too:

"We've made some brilliant advances in qualitative methods and we need to capitalise on them with decent training and capacity building."

4.5.7 General research skills

A number of interviewees identified the need for training in general research skills, including post-PhD. Continued training on writing, publishing, managing risk and data interpretation were all identified. Another interviewee stated the need for training in research ethics especially in relation to advanced methods and social media/digital methods. It was noted that such training would be particularly valuable for members of Research Ethics Committees. Background core skills that allow researchers to move between methods at the intermediate and advanced levels across their career were also identified. Specific areas were: programming, using syntax files, exporting modelling results, data management, file management and using literature review software. Some interviewees also highlighted the importance of improving teaching and training skills, as noted above, so that researchers are able to pass on their knowledge about methods to others:

"I'm not convinced we are doing the best job we can at equipping research staff to be trainers and to train effectively and to facilitate learning. There's very little support and training available to help academic staff understand training skills."

4.6 Mode of Delivery

The consensus among interviewees was that, despite its well-documented limitations, face-to-face training is the ideal and that other forms of training are unlikely to replace it, certainly not in the short to medium term. Interviewees acknowledged the continuing demand for face-to face training, with one interviewee pointing to increased demand for longer courses. The limitations of face-to-face training were acknowledged, such as the difficulties accessing training due to time constraints or geographical location, and the need for skills learnt to be put into practice given that unused skills have a tendency to atrophy. It was noted that some of the limitations could be mitigated through the provision of support pre- and post-training to embed learning. Interviewees were critical of one-off face-to-face courses which are not repeated given that a course needs to be at the right time for a researcher to be able to make use of it. The importance of modular courses was noted so that skills could be developed incrementally through a series of courses from introductory to advanced levels. Several interviewees argued that, despite the focus on advanced training, introductory courses that would lead on to advanced level courses are crucial (especially in relation to quantitative methods). Support was also given to the idea of Masterclasses in which learners learn from an 'expert' and for Summer Schools and the ESRC/NCRM Research Methods Festival, which were identified as particularly positive learning experiences.

There was support for various forms of blended learning in which face-to-face learning is supplemented by online learning or other resources. However, several interviewees noted the limitations of various aspects of online learning. There was little support for the idea that online learning, in its current form, could replace face-to-face learning. As one interviewee stated:

"Face-to-face teaching is still the most popular. In terms of blended learning, the reality of the online aspects of training is that it can be really hard to get the time to finish it off. People start with good intentions but it can be hard to complete."

A number of different types of online learning were identified. It was noted that high quality online learning, in which learners interact with a community of learners, is rare; LEMMA's online training being a notable exception. Interviewees felt that there was scope for better online training but there is a need for substantial levels of investment to provide high quality training. MOOCs (Massive Open Online Courses) were identified as having potential but needing considerable investment in their development to work well. The key issue, as with online training more generally, is the importance of enabling learners to interact alongside the learning process, as one interviewee commented:

> *"In my experience the MOOCs that work best are known as cMOOCs, connectivist MOOCs, where there are resources and there's activity, but there's a lot of community as well, there's lots of interaction, dialogue and discussion that goes on alongside the process. The ones that work least well and have the highest drop-out rates are the ones where there is a series of recorded lectures with essays that you write. It's about going through a process with a cohort of learners."*

Many MOOCs were identified as being of poor quality and one interviewee felt that Universities are currently 'in the thrall of the MOOC' but that 'this is not the model to pursue' in that learners sign up, then disengage because of the lack of interaction and engagement. Other types of online learning, such as webinars, videos of courses or of techniques and various online resources were identified as useful as an introduction to a method or in the context of blended learning but not as a substitute for face-to-face training. Again the limited potential for interaction, which was viewed as central to learning, was identified as a limitation to these types of resources as learning materials. Nevertheless, interviewees noted that some very useful online resources develop out of video recordings of face-to-face teaching (such as those from the Research Methods Festival or Summer Schools); these are very popular resources.

There was consensus that interactive models of learning are important. One interviewee felt that sandpits - in which learners interact with others who have experience of a specific method and learn from each other - were a useful model for this. Another noted that collaborative learning communities where researchers who are using specific advanced technologies or methodologies come together to learn from each other's experiences can be highly beneficial. This model was identified as an important strategy for learning in relation to big data:

> *"From a big data and social media/analytics perspective I would like to see referenced datasets made available for people to come together around the dataset ... because of the affordances of digital [it could be used for] hackathons, used for the Research Methods Festival, used as the site for many papers. I think that would be a really effective vehicle."*

Some interviewees identified one-to-one models of learning as advantageous. Mentoring, peer coaching and placements were identified as particularly useful, though resource intensive, approaches. Another approach identified by one interviewee as having potential was online mentoring:

> *"In academia, people think of e-learning as a blackboard course, but it doesn't have to be delivery of material. For example, in online mentoring you are allocated an expert who works with you via Skype over a 12 week period, discussing work, setting*

tasks and giving advice. It's a wonderful model, firstly you have experts who are willing to give you time, secondly you get that kind of mentoring that builds confidence and a network. This is a less expensive way to do something quite powerful"

There was also some support for apprenticeship models in general, although it was noted that the success of these are dependent on the person providing the training. This model of apprenticeship learning, or 'learning on the job' is one of the main ways of learning in some sectors of research.

5 Results of Consultation with Doctoral Students

DTC and other PhD students were targeted as part of the doctoral student online questionnaire. 374 students responded in total. 48% were funded through a DTC, 36% had another source of funding and 16% were self-funded students. Just over half of respondents to the online survey (55%; n=206) stated that they had received training in advanced research methods or practice in the past 12 months. The majority of this training was provided in-house at the University or College where they were studying (see Figure 5.1).

Overall there was a wide spread of future training needs identified by the students, both in terms of the topics and also the level (see Figures 5.2 and 5.3). Some of the most requested quantitative training related to new areas of methods or data collection such as 'big data', data mining and social media; for these emerging fields, there was more interest in the introductory level training. In contrast, the most frequently selected 'established' topics (more likely to have been previously introduced to students in compulsory methods training), such as Generalised Linear Models, linear regression and quantitative data collection had more interest at intermediate and advanced levels. For qualitative methods there was particular interest in advanced training in both case study research and qualitative interviewing. Discourse analysis and mixed methods were also frequently selected, with Computer-Assisted Qualitative Data Analysis (CAQDAS) appearing in both the closed and open-ended questions.

The modes of training delivery that were rated as most effective were face-to-face short courses, followed by experiential learning and research-based support and mentoring. Learning via online resources was rated to be less effective (see Figure 5.4). While there was comparatively low take-up of online training, in contrast, the open-ended responses suggested that students are keen to access 'good quality' online resources and to receive support via webinars, video conferences etc. This is seen as being flexible in its timing and also reduced the need for travelling to training. Part-time students and those with mobility problems identified themselves as particularly benefitting from online resources. These comments suggest there is a need for such resources, but also again point to a lack of information or pro-active searching on the part of the students and some of the materials they suggest already exist within the ESRC investments and are readily found online.

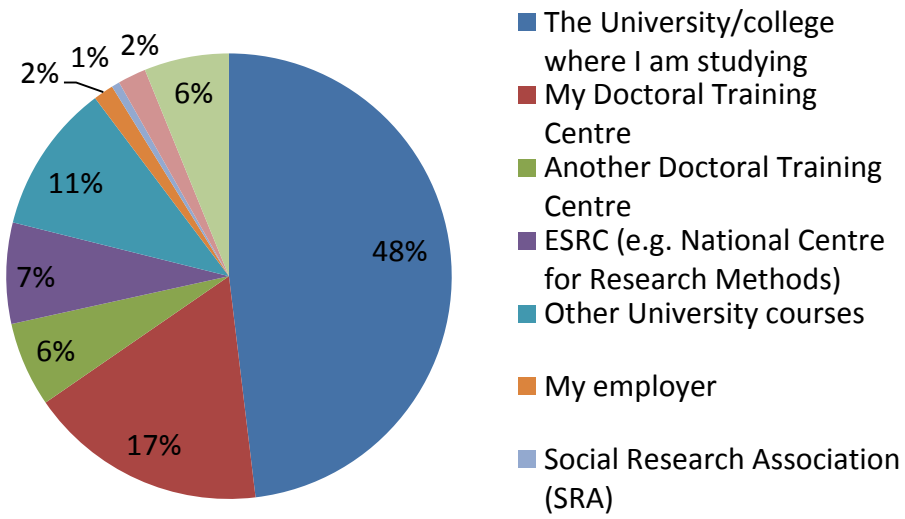

Figure 5.1: Methods training providers used by students in the past 12 months

Note: Students could select more than one training provider; the results are shown as the percentage of the 341 selections rather than a percentage of students. Those selecting 'other' were asked to state the provider: 5 of these were ESRC funded (CEMMAP, AQMEN, TALISMAN and ADRCE), 2 by NatCen and 4 at various seasonal schools. Only 1 student stated they went abroad to attend advanced methods training. Those who stated they had received training via an online provider (n=7) were asked to state which provider they used. Of these, 3 used Moocs (Coursera or Epigeum), 1 used the International Institute for Qualitative Methodology (based at University of Alberta) advanced webinar series, 1 used NVivo, 1 used the Harvard Extension School and 1 stated 'University of Bristol', which could be the LEMMA multilevel modelling modules.

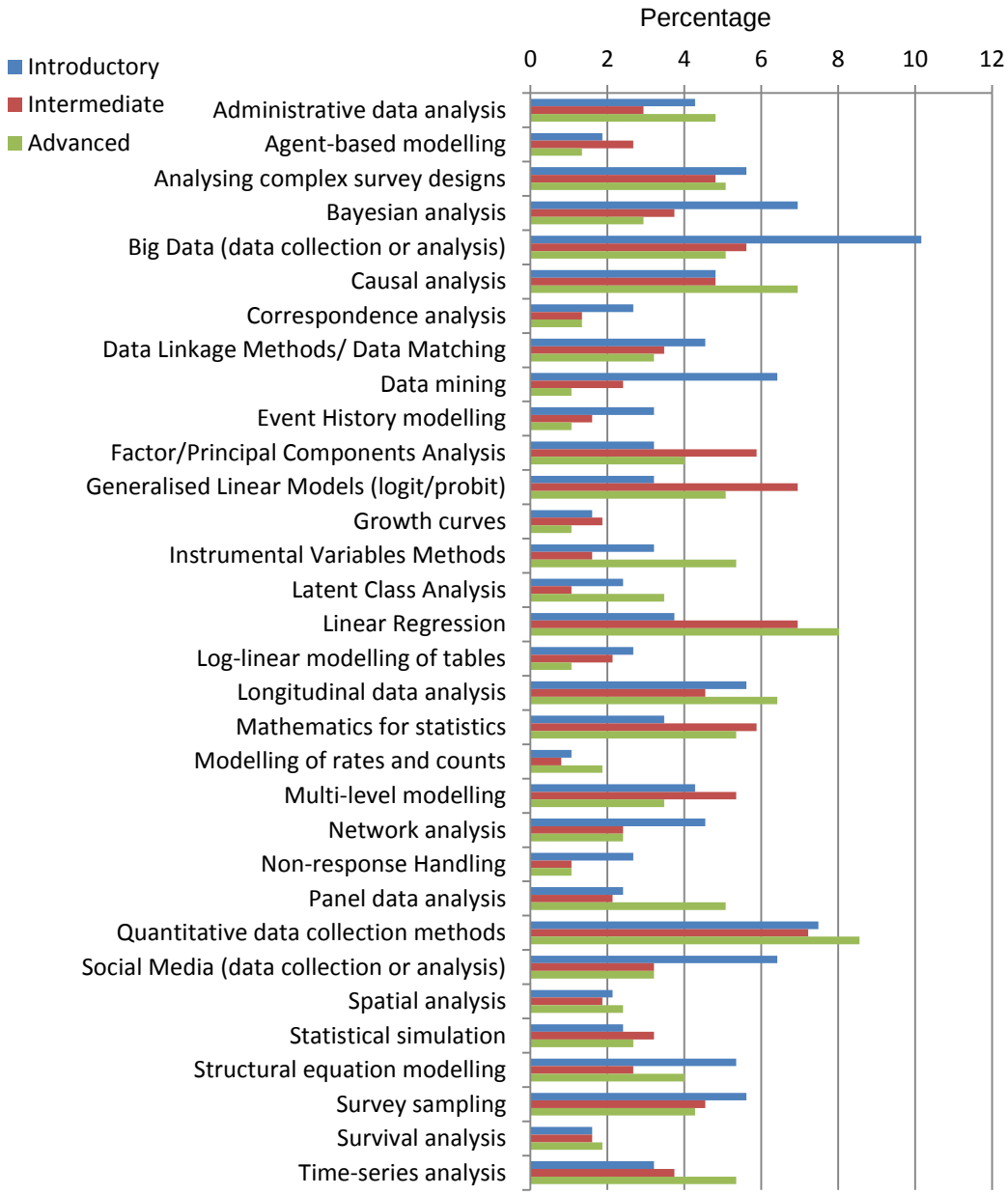

Figure 5.2: Areas of quantitative methods student intend to seek training in during the next 12 months (measured as a percentage of the total 374 students)

Note: 'Other' quantitative methods included: learning quantitative software such as Matlab and R; methods that tend to be specific to Economics, Psychology or Linguistics; Game Theory and Meta analysis.

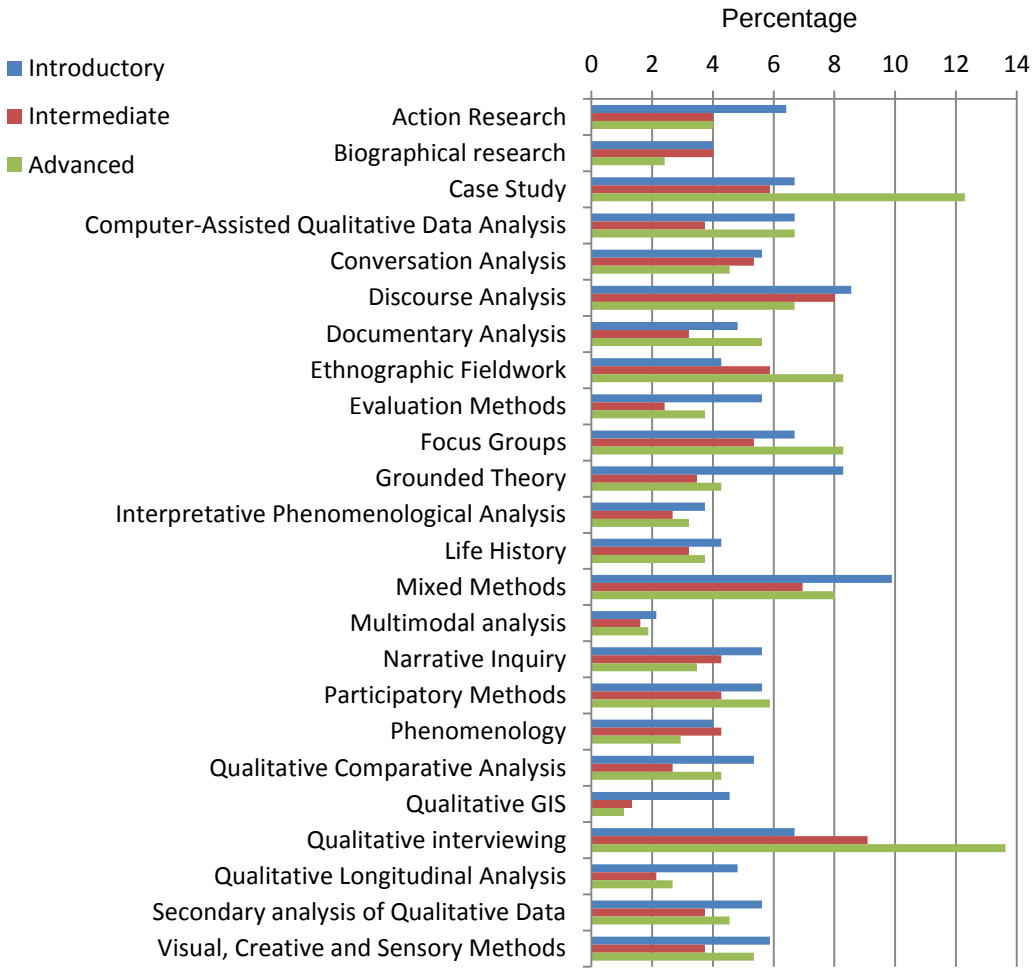

Figure 5.3: Areas of qualitative methods student intend to seek training in during the next 12 months (measured as a percentage of the total 374 students)

Note: 'Other' qualitative methods included: Q Methodology, content analysis and various qualitative software (suggesting Computer-Assisted Qualitative Data Analysis was not well understood as a term).

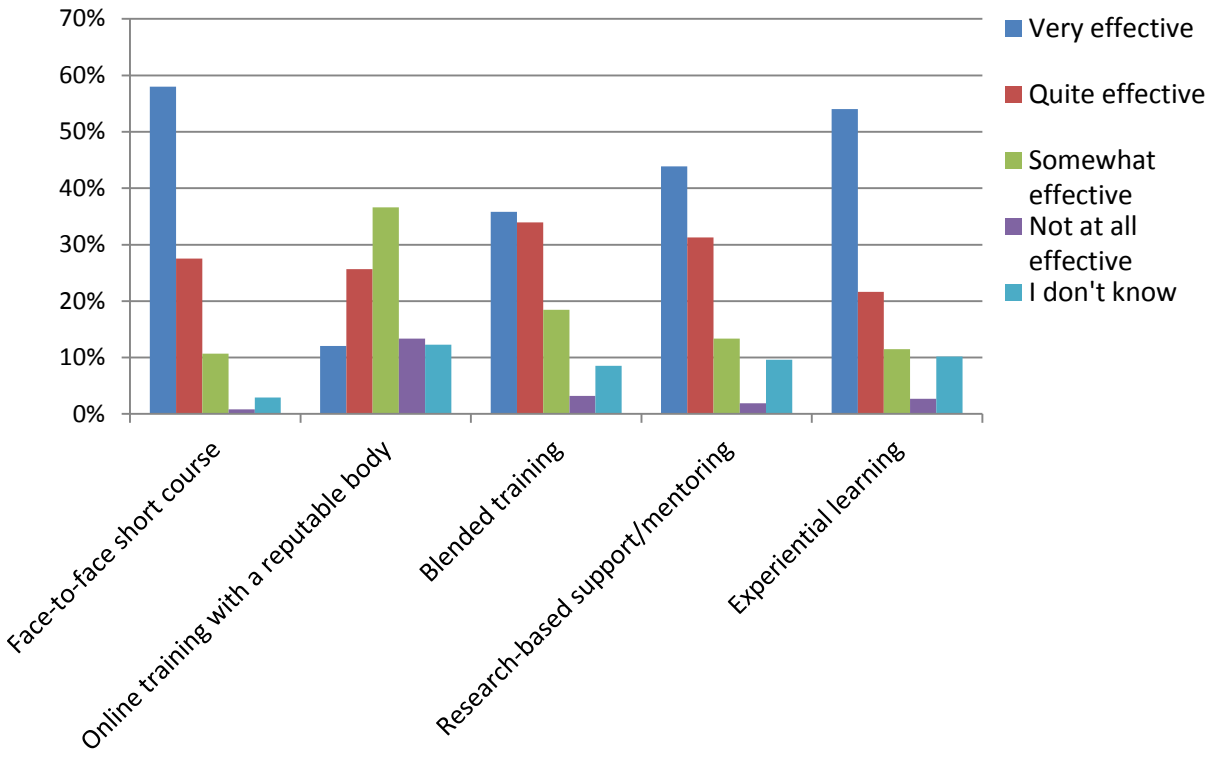

Figure 5.4: Student's rating of the effectiveness of different training modes

Other forms of training stated (59 responses) included:

Face-to-face courses, seminars or workshops, specifically: those with small groups, those with time for working and asking questions about participants' own data, those with pre-course work, those with a 'learning by doing' emphasis.

> *"Training in small groups is always very useful as a lot can be learned from peers"*

The role of peers and colleagues was also important, in face-to-face training, peer led study sessions and informal 1-to-1 discussions.

> *"The most useful events I've been to by far have been ones where current and past students have shared the nuts and bolts of doing research. This has often covered the practical but not technical sides of research"*

Some students cited MOOCs and online materials and lectures for self-paced learning, while others stated they preferred having a personal interactive element and not just online materials.

> *"I view quite a lot of online lectures/tutorials. These are useful because they are easy to access and do not depend on time of availability. You can also pause/rewind if there is something you need to repeat/clarify."*

One-to-one mentoring by senior staff or experts, as well as hands on learning with supervisors were also found to be very helpful methods of learning. Some students

emphasised how much they had learned by teaching methods themselves or by mentoring other.

There were some specific courses and summer schools mentioned with both positive and negative comments regarding DTC training. In general, the 'learning by doing' element of research methods training was prominent.

> *"As I move through the PhD, I am realising that a combination of reading, preparing presentations, webinars, twitter, and playing an active role in the unit where I am based are a good combination, and that, while I always enjoy 'training' courses and get something out of them, the real learning comes in applying it."*

Students commented also on how their funding had allowed them to undertake training and they were very appreciative of the support and opportunities they had experienced.

When asked about barriers experienced in accessing methods training 53% (199) reported none and 47% (175) reported barriers. Reasons for experiencing barriers are presented in Table 5.1. Students elaborated in the open-ended question on two of the barriers to training: lack of funding and lack of time. It was felt that during the lifetime of the PhD there was not enough time for students to meet all of the funding bodies' expectations. One criticism of compulsory methods training in the 1st year was that it took up a lot of time and this left too little time for advanced training.

> *"Training was given via the DTC at the start of the PhD programme. This was compulsory, but I found it only somewhat useful (it essentially repeated Masters level content that I had learnt in the previous year). Much of this was quite basic."*

Self-funded students, particularly those also working part-time, found the cost of paying for course fees, accommodation and travel to be too high and it could also involve taking time off work and losing pay. One student based at a Scottish institution found relevant training and summer schools were based in the South of England and this made them too expensive. In general non-subsidised training was found to be very expensive and undertaking it would mean sacrificing something else. As indicated previously, few students take up opportunities to undertake training abroad and this could relate to the cost and barrier to accessing 100% funding to cover the expenses, meaning even those with stipends may need to seek alternative sources of funding.

Table 5.1: Barriers to accessing methods training

Barrier	Count	% of those reporting barriers
Looking for but not finding any suitable training	103	59
Training being available but not when you needed it	97	55
Not finding out about the training until it was too late	71	41
Not having access to funding to pay fees and/or expenses	71	41
The training venue being too far away	63	36
Direct and/or associated costs were too high	52	30
Not being able to spare the time away from your work/research	43	25
Other	39	22
Training that requires an overnight stay, which you cannot do	35	20
The software used in the training was not the one you wanted to use	24	14

All of the students indicated how their training needs had been assessed in relation to research methods (Table 5.2). While the majority (309; 83%) had received some form of assessment with their supervisor or a senior member of staff, 65 (17%) reported not having any needs assessment within their own institution. Responses from open ended questions indicated that there is a range of support by supervisors in terms of planning and accessing training, ranging from full assessment with information on training providers, to supervisors being unable or unwilling to engage in methods training issues. Where supervisors provided support or training to their students themselves, this was very much appreciated.

Table 5.2: How students' training needs have been assessed during their Doctoral studies

How training needs have been assessed	n	%
In a formal needs assessment with my supervisor(s)	155	41
Informally with my supervisor(s)	237	63
Formally or informally with someone else more senior than I am from the DTC or my institution	37	10
I decided what research methods training I needed myself	197	53
I've not considered any research methods training yet	12	3
Other	15	4

Note: Of those who reported 'other' methods of assessment (n=15), 2 had used an online assessment tool or 'Personal Development Record' but neither were found to be helpful, 1 had used the Vitae Framework but found it hard to use, 2 spoke to colleagues, 1 spoke to an expert at another institution, 2 referred to the mandatory methods training they had undertaken, 1 gained information from Thesis Advisory Panel Meetings, 1 saw an ESRC presentation, 4 had tried to engage their supervisor or other senior staff but reported not receiving any advice.

5.1 Further results from Open-Ended Responses

In total 109 (29%) responded to and open ended question at the end of the survey, to provide any final thoughts on the training needs of PhD students and how these might be met in the future. Themes arising from these comments (if not mentioned above) included: specific needs, depth and breadth, perceived training gaps, qualitative disadvantage, and lack of information. These are discussed in turn:

5.1.1 Specific needs, depth and breadth

Students researching topics on the periphery or outside 'social sciences' (e.g. cognitive neuroscience) did not find courses outside their specific area helpful, so would not be interested in any of the methods areas listed in the survey. In contrast, others felt that they needed more basic training in either quantitative or qualitative methods, or in both. It was apparent there was some conflict over depth vs breadth of training, with some being unsure as to how many methods they should be acquainted with and others resenting the 'compulsory' training in the 1st year of their PhD:

> *"Training tends to be quite generic - high volume of research students coming in requiring ever more general research training. However, this has meant that training tends not to satisfy anyone's needs. I think there needs to be more focus on tailored training opportunities providing depth rather than trying to cater to everyone at once and satisfying no one."*

Problems with generic training were raised, with some students requesting more discipline specific methods training.

5.1.2 Perceived training gaps

Specific training needs were identified several times in meta-analysis and systematic reviews, but only once in the following: discourse analysis, humanistic research, digital methods for history researchers, case study methodology, discipline specific ethnography, participatory action research, context based ethics, game theory, simulation modelling. Training on specific software was also requested, with R and Python being mentioned several times and ELAN, Atlas ti, AMOS and GIS once each.

5.1.3 Qualitative disadvantage

Several students noted that there was more quantitative training available than qualitative, more ESRC funding going into quantitative projects and resources and more money available to advanced quantitative students. Funding was a barrier and qualitative students reported that they had less funding to spend on training than advanced quantitative researchers. They were also much more likely to need to spend their funding on fieldwork. They therefore felt doubly disadvantaged in relation to their quantitative, secondary data analysis peers. Others expressed that they would not have chosen a qualitative methodology if they had realised the funding and career implications within their discipline:

> *"…it wasn't made clear at the beginning of my programme (and in my methods training MRes) that those with non-quantitative research would be at a disadvantage. As such, I'm quite worried about my career prospects here and in the US, where I intend to look for a job."*

5.1.4 Lack of information

Fourteen students (4%) suggested that more information was needed about their research methods needs and particularly about how to access methods training. Students reported receiving emails advertising courses, but these would be too close to the event for them to be able to plan to go. Some of the suggestions focused on just wanting to know what was available with their DTC, but others wanted to know about training available outside their institution or DTC. It was apparent that some students were unaware they could sign up to the NCRM newsletter or could look on the NCRM training and events database.

> *"There seems to be a very large variety in what sort of training is available across universities - with some providing more support than others which creates an unbalanced approach. There should be a more general and accessible forum in which training can be gained for registered PhD's which could be signed up for by students from across the country."*

This lack of information regarding training opportunities was echoed in workshops run by NCRM staff at a Doctoral Training Student Conference in April 2015, whereby the majority of final year students were unaware of the NCRM Training and Events Database and did not understand that training at other DTCs was available to them or where to find out about this training. The tone of some of the students who felt under-informed, both on the online survey and at the workshops, suggested that they tend to receive training information passively rather than actively seeking it. Most DTC websites include a training page that links to the NCRM training and event database, but awareness is still lower than might be expected.

6 Results of the Consultation of ESRC Future Research Leaders

Most, though not all, FRLs felt they had not already had, at this point in their careers, enough research methods training for what they needed in their career in research. There was a lot of variation in the number of days per year that FRLs thought they should be spending on methods training. The answers ranged from 0 to 20 days, with 5 being typical. Some suggestions were surprisingly low (less than 3 days) given that FRL funding applications require a training plan. Most FRLs felt that they were getting the level of training they felt was optimal.

When the FRLs were asked if they felt that the balance of training provision currently available to them between introductory, intermediate and advanced was about right, most felt it was not, with the majority wanting to see more advanced (specialised) training. About 60% had experience of some of their training coming too soon in their careers, with some also reporting experience of training coming later than was ideal. This could indicate that the availability of training may not always coincide with the best timing of particular training for career and research development. A potential benefit of most online training is that it is far more flexible with regards to timing. In contrast, a benefit of face-to-face training was that the majority of FRLs had been on face-to-face training where they had been helped by a question being asked by another person on the course (with the answer given by the presenter).

About half felt they had not had enough training in some fields but too much in others in the course of your academic career (e.g. too much qualitative training and not enough quantitative or vice versa). The rest felt that their training to date had been about right.

FRLs mentioned a range of barriers to their undertaking methods training as follows:

- Too much work was commonly cited, with FRLs finding it hard to prioritise training among competing pressures.
- The training they needed had not always been available.
- Training opportunities coming earlier or later than they needed it or at a time when they could not attend.
- Travel was not much of an issue for a 2 or 3 day event, but for 1 day events it was not considered cost or time effective to travel too far.
- Awareness of training was a problem for some FRLs, suggesting they may attend events they happen to see advertised, rather than seeking training as specific needs arise.
- In terms of their academic colleagues who did not have FRL funding, it was felt that funding was a particular constraint as FRLs have funding available but other ECRs may not. This could particularly be so of those on fixed-term contracts and for Teaching Fellows.
- FRLs also noted that for many academics, work-life balance was already hard and going away on a training course was particularly hard for those with family responsibilities.

There was a mixed response regarding views about breadth and depth of methods training. Most felt both were important, with an observation that the focus changed over the lifecycle of a project, starting with breadth but becoming narrower in focus as the project progresses.

Consideration of breadth of research method skills lacked some of the anticipated discussions of employability, teaching and working in mixed research teams for example. This suggests that PhD students and ECRs can be very focussed on their current project needs, with limited planning for the future and other aspects of methods applications.

Most FRLs had used some types of online resource, be it a YouTube video, downloads of training PowerPoint slides or useful webpages. Very few had undertaken a structured online training course such as that provided by the NCRM LEMMA node. Benefits to online training included working at your own pace, but problems with lack of feedback and software formats were seen as barriers to online methods.

Regarding gaps in the training provision, many FRLs felt there was plenty of training available and did not make many suggestions. Those who felt topics were missed out had quite specific needs, including spatial analysis (GIS), methods used in medical research, using specific software packages (here R and NVivo were mentioned), Q-sort methodology, qualitative online methods, and visual or digital methods. Some training suggestions were more transferable or broader research skills such as methods of data visualization, documentary film production, website design/interaction, advanced IT soft skills and writing for broad or different audiences. Those FRLs who were already in lecturing posts were interested in training that related more to the teaching of research methods, thus linking in to the 'training the trainers' model. FRLs also suggested more opportunities for bespoke training from experienced collaborators would be particularly valuable.

Most FRLs reported undertaking methods training that is typical within their home discipline. It was suggested that some disciplines are inherently more willing to undertake or already engaged in multi-disciplinary research and research that crosses boundaries. Other disciplines were much more focused on their single discipline and its associated methods. About 80% stated that they preferred to undertake methods training with others from their own discipline.

When FRLs were asked if the training that they want to do was distinct from the training they are advised to do, the question was found to be confusing. The majority were not being advised in relation to their training needs by their mentor or another senior member of staff. There was a suggestion that transferable skills (such as the PGCert in Academic Practice) were perhaps more likely to be suggested by senior colleagues, but that the role of FRL mentors varied widely and generally did not include discussions about training. Further discussions with FRLs highlighted a tension between developing new areas of methodological expertise and sticking to what they were already expert in, particularly when applying for funding. They felt they needed to demonstrate they were already well able to do the analysis they needed for their research project and any methods training beyond that was to take then from 'very good' to 'excellent'. The training they suggested on their application forms could therefore be considered more box-ticking and not really fulfilling the career progression role intended. When applying for jobs or funding they did not feel they could suggest undertaking research that took them onto new methodological areas as it was felt this would make them weaker candidates. Some FRLs liked the idea of a structured training needs assessment as part of their funding, or indeed for ECRs more widely.

7 Results of the Social Research Association Online Consultation

In total there were 209 responses to the SRA online survey. In terms of uptake of courses 45% reported having received training in research methods during the past 12 months. Of those that had undertaken training, 38% said the training was provided by their employer and 46% through the SRA. While some training (22% respondents) was provided at universities, no one reported doing training funded by the ESRC, including NCRM. This suggests that take-up of NCRM courses by professional researchers is uncommon, although courses by NCRM nodes were then mentioned in the 'other' category, suggesting that ESRC/NCRM branding is not always apparent or not recalled. Only 7% of respondents had used online training.

Participants were asked which areas of quantitative and qualitative research methods they would seek training in over the next 12 months and at which level(s): Introductory, intermediate or advanced. The responses for the quantitative methods are given in figure 7.1 and for qualitative and mixed in figure 7.2. In the area of quantitative methods training, impact evaluation, longitudinal data analysis and panel data analysis were the most popular, as well as all survey-related training. Further topics with high demand included: analysing complex survey design, causal analysis, data mining, linear regression, network analysis, nonresponse handling, survey sampling, survey weighting and time series analysis. Overall, there was most interest in basic level training, suggesting many researchers want to find out more about particular quantitative methods they are not yet familiar with, in particular panel data and longitudinal methods. Impact evaluation was unique in having a much more even spread of introductory, intermediate and advanced.

In comparison, in the area of qualitative methods training there was much more interest in intermediate and advanced training with evaluation methods again being the most popular. Of note is the high interest in introductory level Computer Assisted Qualitative Data Analysis (CAQDAS). Further examples of topics in demand are: action research, case study, discourse analysis, focus groups, mixed methods, qualitative comparative analysis, qualitative interviewing, secondary analysis of qualitative data, visual, creative and sensory methods.

As in previous reports, there was a preference for face-to-face short courses with over 85% of participants stating they found this a 'very' or 'quite' useful mode of training (see Figure 7.3). The other modes, including online training with a reputable training body, blended training with materials online prior to/following a face-to-face course, formal work-based support or mentoring and experiential learning through active involvement in a research project were found to be useful for between 58% and 70% of members. Overall, this confirms a range of training preferences for different learners, but with face-to-face remaining most popular.

Of those who had sought training in the past 12 months 44% reported experiencing barriers to accessing methods training. The types of barriers reported are given in figure 7.4 below. It is apparent that cost, time and travel are the main barriers, with more than 75% of respondents saying they either did not have funding to pay for training or that direct or indirect costs of training were too high.

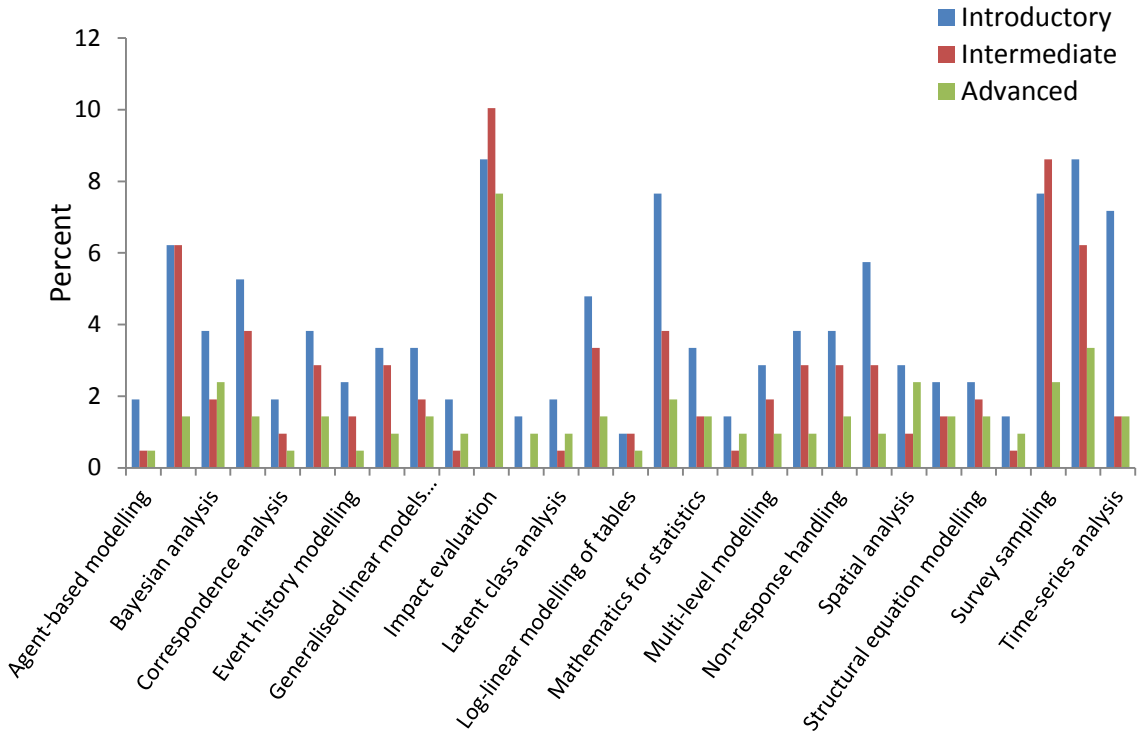

Figure 7.1: The areas of Quantitative Methods SRA members intend to seek training in during the next 12 months as well as the level(s) - introductory, intermediate, or advanced

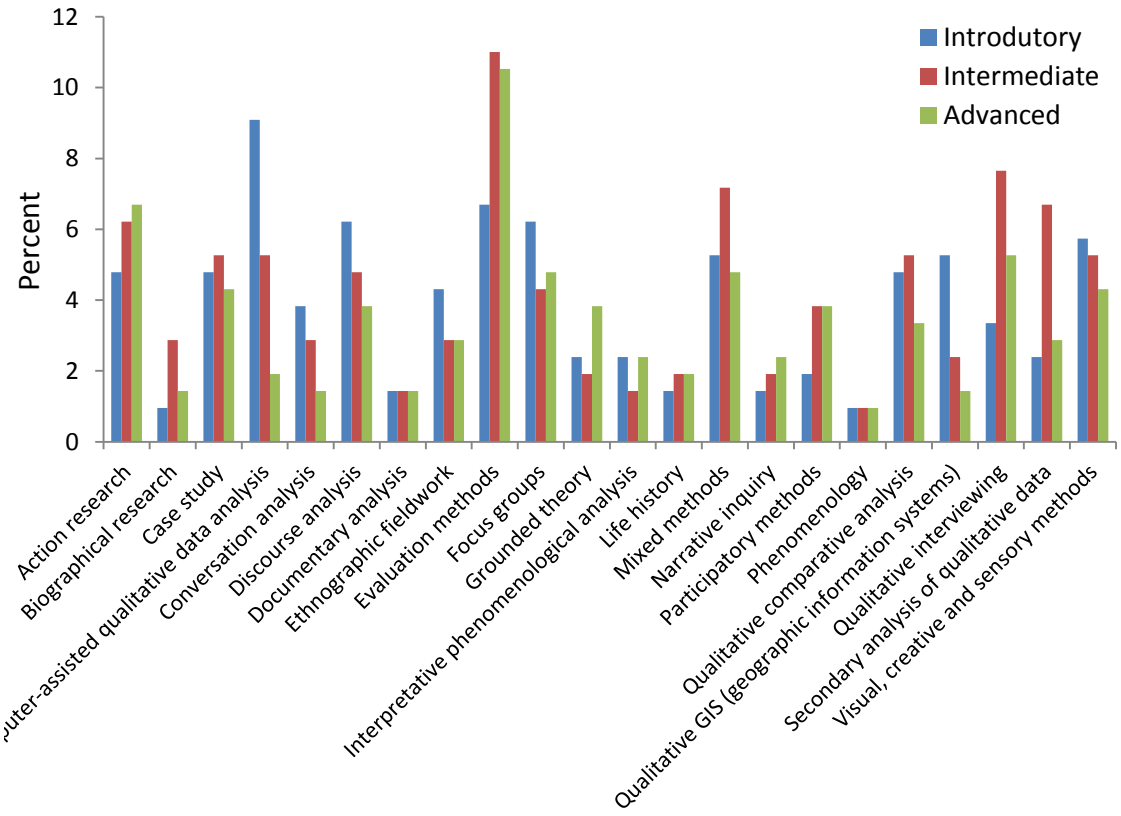

Figure 7.2: The areas of Qualitative Methods SRA members intend to seek training in during the next 12 months as well as the level(s) - introductory, intermediate, or advanced

The distribution of those who reported geographical distance to be a barrier was not even. Figure 7.5 shows the place of residence for the participants with by far the highest numbers being based in London and the South East of England. Proportionately more participants from Scotland reported geographical distance was a barrier to training. While the proportion reporting geographical distance as a barrier in areas such as the North East and North West of England appears high in comparison to other regions/countries the number of respondents from these areas is small making it is difficult to draw inferences.

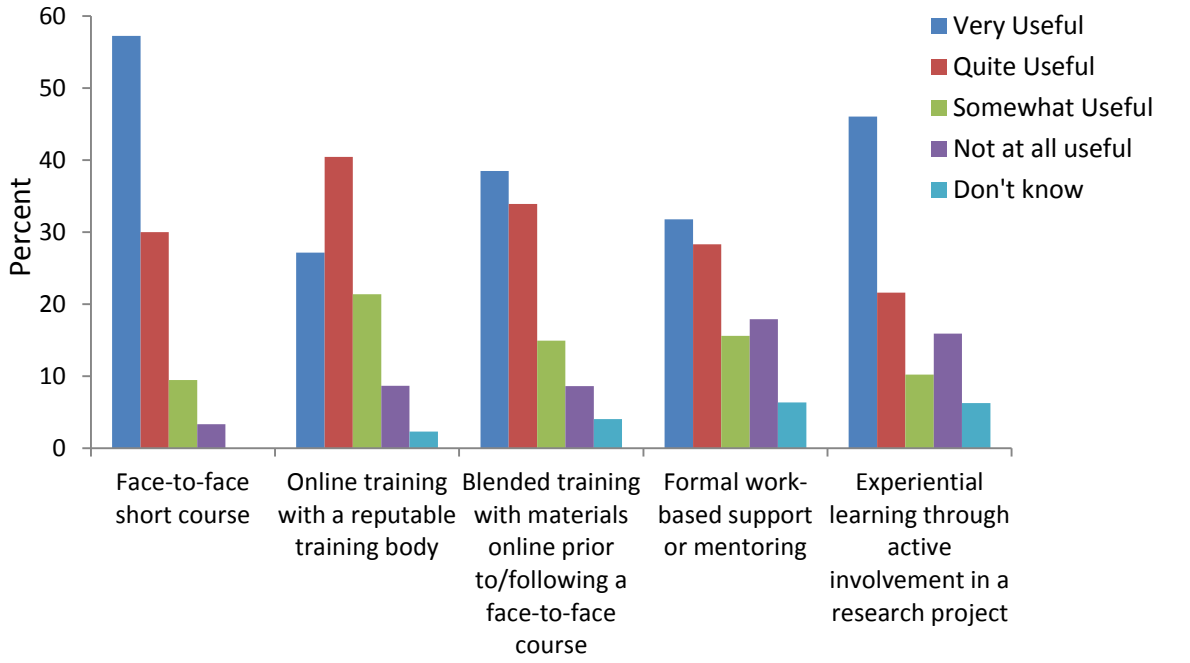

Figure 7.3: Perceived usefulness of different modes of training

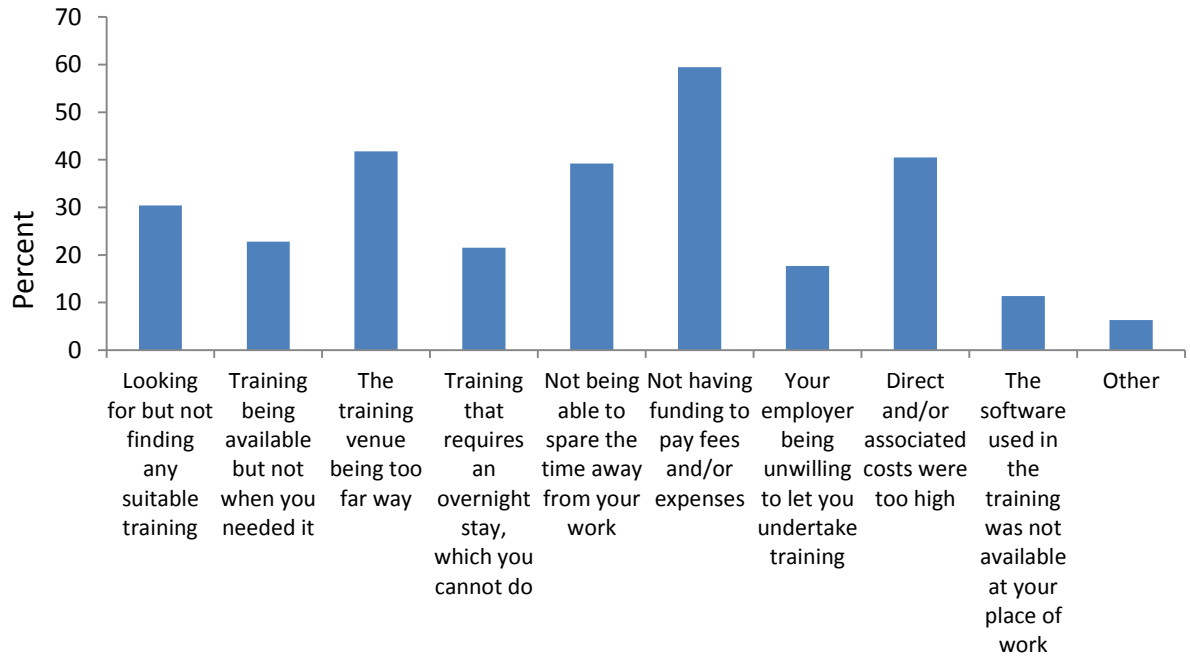

Figure 7.4: Reported barriers to training (n=79, more than 1 barrier could be selected)

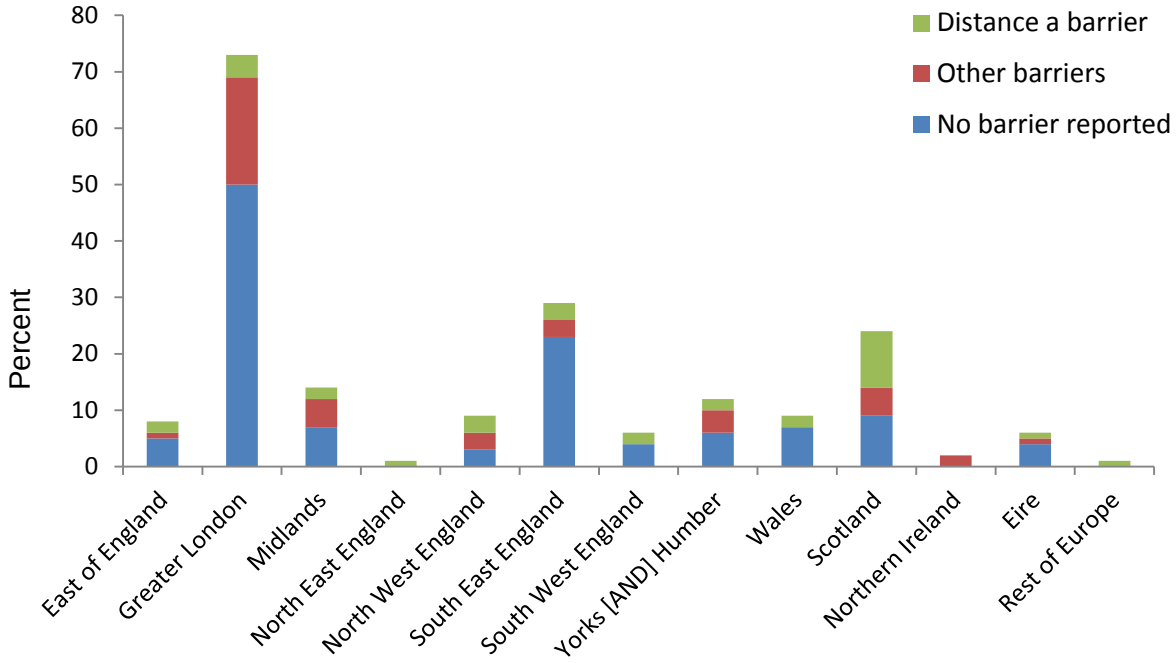

Figure 7.5: The regions/countries of residence and whether geographical distance was reported as a barrier to training.

8 Results of the NCRM Training Resource Use Audit

Over the last 10 years NCRM has developed a rich body of online resources and training courses. When assessing training needs and the likely demand for particular research methods topics it seems natural to assess the level of demand of such resources.

8.1 NCRM Training and Events Database

The NCRM training and events database (http://www.ncrm.ac.uk/training/) is a key resource which provides information on forthcoming courses in social science research methods. The database contains all NCRM courses but is also open to courses submitted by any provider. Entries are moderated by NCRM for their relevance before being visible on the website. The database was initially created in 2005 and has undergone various updates and changes. The database provides a comprehensive function to search for courses.

Over the 2 year period from 1st April 2013 to 31st March 2015 there were 528,730 pageviews of the training and events database, of which 377,870 were unique pageviews. This represents over half (55%) of all the traffic to the NCRM website.

During the period considered, a total of 1343 courses were entered onto the database. Of these, 47 were provided by the NCRM hub and 242 by the NCRM Phase 3 nodes (http://www.ncrm.ac.uk/about/phase3.php). A further 269 courses and events were uploaded by the 21 ESRC Doctoral Training Centres. The remaining 785 courses and events were entered by other providers.

Table 8.1: List of most popular (fully booked or waiting list) NCRM hub and node courses or events during the period 1st April 2013 to 31st March 2015.

Name of NCRM course/event
Discrete-time event history analysis
Longitudinal Data Analysis in Stata
NCRM annual lecture by Professor Paul Atkinson: Why do fieldwork?
Working with Sounds and Spaces: Field Recording for Qualitative Research
Predicting and Understanding the 2015 General Election
Objects, Memory, and Narrative
Working with Paradata, Marginalia & Fieldnotes: The Centrality of By-Products of Social Research
TCRU/NOVELLA Seminar: Narrative Identities
A Short Course on Concepts and Methods in Causal Inference (x2)
Confounded about confounding? An introduction to causal inference
New approaches to biosocial research: using genes in social and epidemiological studies
Causal mediation analysis in social and medical research.
Using biomarkers in research on health
Social disadvantage, child health and attainment.
Policy Evaluation Methods (x6)
Dynamic Economics in Practice (x2)
Are you sure that's the answer? Robust inference and policy evaluation.
Simulation Methods and Robust Inference for Clustered Data (x2)
An introduction to impact assessment
TALISMAN Summer School: Computer Programming for Social Scientists
An Introduction to Spatial Microsimulation using R

Information on numbers of course participants per course are only available for NCRM courses, because there is no connection between the NCRM database and the course registration systems used by other providers. Investigating those numbers for courses in the two year time period indicates that 2743 people registered for NCRM courses and events (excluding the Research Methods Festival).

It is possible to get an indication of the most popular or in-demand NCRM hub and node courses by looking at which ones were fully booked or had a waiting list in place by the time of the event. 29 courses were fully booked or had a waiting list over the 2 year period and these are listed in Table 8.1.

8.2 NCRM Online Resources

NCRM has a large collection of methodological podcasts, videos and papers (see Tables 8.2 and 8.3). Podcasts were played or downloaded 49,400 times, with the greatest number of downloads for Jeff Bezemer's podcast '*Digital technologies in the operating theatre*'. Videos were watched or downloaded 7400 times.

There were 1,504,756 Eprints views and downloads of which 126,357 were downloads for Baker and Edwards' 2012 discussion paper '*How many qualitative interviews is enough'.*

Table 8.2: Top 10 downloads from the NCRM Eprints data base containing NCRM methods papers including methodological review papers, and total number of downloads.

EPrint item	Author	Downloads
How many qualitative interviews is enough	Sarah Elsie Baker, Rosalind Edwards	126357
A Typology of Research Methods Within the Social Sciences	Gabriele Beissel-Durrant	35452
Methods for the thematic synthesis of qualitative research in systematic reviews	James Thomas, A Harden	26928
NCRM Methods Review Papers, NCRM/005. Mixed Methods Research: A discussion paper	Julia Brannen	26910
Conducting qualitative research with people with learning, communication and other disabilities: Methodological challenges	Melanie Nind	25836
Discourse Analysis: varieties and methods	Jason Glynos, David Howarth, Aletta Norval, Ewen Speed	17049
An Overview of Methods for the Analysis of Panel Data	Ann Berrington, Peter Smith, Patrick Sturgis	16441
Methods for the synthesis of qualitative research: a critical review	E Barnett-Page, J Thomas	14012
Visual Ethics: Ethical Issues in Visual Research	Rose Wiles, Jon Prosser, Anna Bagnoli, Andrew Clark, Katherine Davies, Sally Holland, Emma Renold	13528
What Are Academic Disciplines? Some Observations on the Disciplinarity vs. Interdisciplinarity Debate	Armin Krishnan	13270

Table 8.3: Top 10 NCRM methods podcasts, including total number of downloads.

Podcast title	Author	Downloads
Digital technologies in the operating theatre	Jeff Bezemer	31975
How many interviews is enough?	Rosalind Edwards	1220
Digital Methods	Digital Methods Researchers	1051
What are Qualitative Research Ethics?	Rose Wiles	1042
Big data challenges for social scientists	Mark Birkin	902
Telling the untellable: researching emotionally sensitive and challenging topics	Denise Turner	876
Blurring the boundaries	Gareth Morrell	852
Understanding support for Complementary and Alternative Medicine in general populations	Patrick Sturgis	823
Evaluating and improving small area estimation methods	Adam Whitworth	790
Relationship between employment transitions and mental health among British men	Fiona Steele	724

Also hosted within the NCRM website is the ESRC-funded ReStore project, which preserves, sustains and actively maintains selected online research methods resources beyond the initial funding award (http://www.restore.ac.uk/). During this 2 year period the ReStore resources had 151,400 users, resulting in 456,650 individual pageviews.

9 Discussion

The purpose of this report has been to provide an assessment of the need for training in research methods used by social scientists in the UK and to inform the delivery of NCRM and ESRC's advanced training strategy. It has drawn on data collected from interviews with a range of stakeholders, surveys, workshops, and use of NCRM resources. These data provide the basis for reflection on the changing training landscape, priorities for the development of training opportunities, and consideration of obstacles to their realisation.

There are several commonalities with the conclusions of previous NCRM reports into training needs, despite the passage of time and variation in methods used and types of participants contacted. There are, for example, familiar themes around imperfect knowledge about the availability of training opportunities as a barrier to take-up, and the challenge of co-ordination within the multiple elements that make up the overall training infrastructure. That said, the training landscape is far from static, and patterns of change are important influences on the identification of priorities for strategic development.

Continuity and change is evident in relation to the range of methods in demand. Interviewees stressed the need for training in relation to Big/digital data as new forms of data (also clearly featured in the NCRM assessment of research needs, see Luff et al., 2015; and in Elliot et al. 2013), and in relation to biosocial data. It is notable that these two topics have been identified as the first two ESRC Centres for Doctoral Training themes. Such initiatives will not be starting from scratch, however, as the data in the report relating to the most popular NCRM resources indicate. These 'emerging' areas are located alongside other, more long-standing topics such as interviewing, longitudinal data analysis, ethics, and impact evaluation methods. It was stressed by informants that core training in established areas should always have a place and that courses may need to be repeated at different time points and locations for researchers to make maximum use of them, moving away from simply one-off courses. The importance of modular courses was noted so that skills can be developed incrementally through introductory to advanced levels. The need for introductory courses (in addition to courses in advanced levels) was identified throughout the consultation by all the groups consulted, in particular in quantitative methods. This indicates that there are continuing needs for both established and new methods, as is to be expected. Not only is there a succession of new cohorts of research students and early career researchers who need training across the range of methodological approaches, it is also the case that these established methods are themselves characterised by innovation, and researchers at all career stages need to update their skills in relation to ongoing methodological transformations. Put another way, the case for methodological pluralism in training remains strong, and 'emerging' topics will take their place alongside more established ones rather than eclipsing them. Talk of 'the end of the survey' is premature, for example, if current patterns of training uptake are anything to go by. Survey methods figure prominently among the topics which SRA members and students plan to take (e.g. figures

7.1 and 5.2 respectively). One important point to emerge from the consultation is the interlinked relationship between research and training, which becomes particularly important in areas of emergent areas such as big data, where both training is required to facilitate research and research is required to allow training.

The sheer range of quantitative and qualitative methods for which there is vibrant demand, as indicated through the surveys of students and SRA members and the usage figures for NCRM resources, supports the case for balancing encouragement of innovation in new areas with the maintenance of methodological pluralism. Taken as a whole, the interviews with key stakeholders are consistent with this case. Part of the case for fostering innovative developments across a broad range is that it is taking place in (for example) structural equation modelling and in ethnography as well as in newer methods. The case also comprises the argument that innovation is risky and unpredictable (most innovations fail), and that therefore it requires the space for experimentation and learning from experience. Innovation is unlikely to be cultivated to its full potential in a top-down, dirigiste fashion. This is the point made by the key stakeholder discussing the tension between 'quirkiness' (or inventiveness) and centralised co-ordination. As with innovation more generally, new thinking is promoted best within an environment that allows space for risk-taking and serendipity. It is recognised that some advanced training is discipline or subject specific, whilst other training may have a wider application. However, given the data available, this report does not attempt to identify discipline specific training needs. The focus is on broad recommendations for advanced methods training.

The limitations of strategies that are over-reliant on centralised control and direction are directly linked to the idea of the various elements of the training landscape constituting a network. The key informants' comments about the nature of networks highlight the challenge of facilitating and co-ordinating spaces for creative interaction across diverse training providers and users, across disciplines, across career stages, and across sectors. Thus even if a central entity with the remit to direct the implementation of a fixed strategic plan were to be identified, it is doubtful that it would be as effective at promoting innovation as a looser network has the capacity to be.

That said, there is clearly an argument for better co-ordination of the training provision offered by key training providers, such as DTCs, ATI grant holders, NCRM, the SRA, the data infrastructure group, including for example UKDS, ADRN and CLOSER, and others. The SRA has, alongside government social research, proposed the idea of a 'competency framework' which emphasises the importance of promoting training trajectories of researchers in a more coherent way than ad hoc attendance at individual training events. Such a framework might help to reinforce the idea of training as meriting a dedicated proportion of a researcher's time over the course of the working year. The variability of actual time dedicated to training reported by FRLs, and their mention of the difficulties of ring fencing time for training, are relevant here. Also, without a framework that sets out coherently the way in which elements of training may build on each other, the acquisition of skills risks being ad hoc and unconnected instead of incremental.

The challenge though will be to identify the range of skills which it is appropriate for a generic researcher to acquire, and the order and timing of that acquisition, while at the same time acknowledging that researchers are a heterogeneous community. In particular, researchers seeking training have markedly different starting points in terms of previous training, career stage, as individuals or as members of research teams, disciplines, Higher

Education Institutions, sector (with their varying balance of emphasis on academic and non-academic 'impact', and also differing charging profiles), aptitude and ways of learning. For these reasons, the ideal balance between introductory, intermediate and advanced training in any field will always be difficult to achieve, not least because what is considered 'advanced' varies from discipline to discipline.

Furthermore, the theory and practice of pedagogy are not fixed. The development of online learning is bringing change to the training environment, although (as all the evidence here shows) as a complement to rather than as a replacement for face-to-face learning, which still is being recognised by far as the most important form of training. Here it is worth noting that reported quality of online courses is lower (see figure 5.4 from the student survey, and for SRA members figure 7.3), identifying a need for high-quality online resources and teaching and learning experiences. The consultation also stressed the importance of blended learning in which learners interact with a community of learners. Pedagogy more generally is changing the learning environment because of increased awareness and application of the idea of active learning which has the potential to change *how* people learn (as distinct from *what* people learn). The references made by key stakeholders to (on-line) mentoring and to peer coaching or 'sandpits' - in which learners interact with others who have experience of a specific method and learn from each other - provide further examples of evolving learning practices. This matters for the reason pointed out by the key stakeholder who distinguished between the acquisition of technical skills and the appreciation of their value and putting them to best use ('research sensibility').

A further element in the diversity of the training constituency is the recognised need for 'training the trainers', whose training needs may comprise both content and styles of delivery and specifics of pedagogic knowledge. The heterogeneity of the training constituency points towards diversity of provision and a diverse training field also carries with it the potential for innovation to flourish.

The precise role for and nature of co-ordination within this landscape of diversity of training provision and usage remains to be resolved. For example there may be a role for coordination across broad topic areas, timings of events and across geographic regions and for the identification of unmet needs (although it should be recognised that many logistical constraints exist within which any system would need to operate). Co-ordination also has the potential to reduce the variability of reported usefulness of courses (see figures 5.4 and 7.3) through sharing of information about best practice. Thirdly, co-ordination has a potential role to play in improving publicity about training opportunities, as several key stakeholders note. It is evident, however, that not all potential beneficiaries of training are as active in seeking out relevant opportunities as they might be.

There may also be a greater role for ESRC and NCRM to promote existing initiatives (such as NCRM training) and to reach out to core target groups, such as PhD students and early career researchers. In this context, advice on training needs given to PhD students by supervisors and to Future Research Leaders by mentors appears to be an opportunity of which more could be made; targeting of supervisors and mentors may be an appropriate response here, especially as such advice will balance training for immediate needs versus longer-term requirements relating to subsequent career stages. Supervisors and mentors are well-placed to identify training needs as distinct from 'wants'. Fourthly, there is scope for co-ordination in relation to how the evolving portfolio of research training provision dovetails

with on-going wider discussions about the research environment concerning disciplines and interdisciplinarity, the breadth and depth of training, and the UK situation in the wider international context. On the first of these, the growing emphasis on interdisciplinarity has connections to the rising popularity of mixed methods approaches. This impetus towards breadth of training is from some points of view in tension with the depth of methods skills to be acquired to ensure that researchers have the expertise to be at the cutting edge of their field. This is connected to the international dimension of the research agenda and the associated labour market which, although these were not highlighted in the data collected for this report, nevertheless matter to the consideration of future research training needs.

10 Recommendations

Based on the issues highlighted during the consultation, this report makes the following recommendations:

1. Training should continue to be provided across the full range of advanced methods including established as well as emerging methods. Training at the cutting-edge level should continue to be complemented by training at the introductory to advanced levels, in particular in quantitative methods. Courses offered may be modular with learners able to attend courses from the introductory to advanced levels. Consideration should be given by training providers to the geographical spread of training across the UK in order to meet local needs.
2. High quality online training resources should be developed, although as a complement to, rather than a replacement for face-to-face training.
3. As well as targeting training at PhD students and ECRs, some training should also be tailored toward mid and later-career researchers. Careful consideration is required as to what format such training should have, if for example as a training event or as a research event, as well as mode of delivery. The needs of researchers who deliver methods training for on-going training themselves should continue to be addressed through 'training the trainers' events. (Whilst NCRM already covers such target groups and some of the proposed activities the findings are of relevance also to the wider ESRC community.)
4. The interlinked relationship between training and research should receive greater emphasis, with research informing further training and training advancing capacity in new and emerging research.
5. A greater emphasis should be placed on promoting current training since much high quality training and online resources already exist. However, it has long been and remains a challenge for providers to reach key target groups, including PhD students and FRLs, but also senior researchers, including PhD supervisors. ESRC and NCRM have an important role to play in promoting training activities and outreaching to key stakeholders. NCRM's website should continue to be updated to meet the needs of researchers seeking information about training opportunities. In particular, NCRM plans accessing NCRM online resources via a login which will facilitate improved searches for events, training courses and other online resources in the researcher's specified areas of interest.
6. High demand courses should be repeated in different locations throughout the UK. Whilst it is recognised that unnecessary duplication of training courses should in

principle be avoided, repeating training courses across different time points and in different locations is not in itself problematic if the training is in areas of acknowledged need and demand for places is high.

7. Careful consideration should be given to the question of whether and how to co-ordinate the various elements of the advanced training infrastructure. Co-ordination may be best achieved via a loose network that allows the sharing of experiences and information as well as infrastructure, such as communication and marketing. The network should not rely on a highly centralised system, since this may discourage innovation, be unpopular with stakeholders, and prove operationally unwieldy and resource intensive.

   Any recommendations and proposed changes will need to be well thought through with clear consideration of any implications - desired and undesired. Also careful consideration needs to be given to adequate time and staff resources any recommendation would entail. The consultations did not bring up developments in other countries specifically. However, future advanced training should take account of international developments.

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12 Appendices

Appendix A: List of key stakeholders consulted by interview

Appendix B: Interview Schedule for consultations

Appendix C: Further information about the doctoral student survey and background of participants

Appendix D: Online Survey Questionnaire for Doctoral Students

Appendix E: Background characteristics of participants in SRA online survey

Appendix F: Questions which formed part of the 2014 Social Research Association (SRA) Annual Online Survey

Appendix G: ESRC Future Research Leaders Event Workshop Outline

12.1 Appendix A: List of key stakeholders consulted by interview and background to interviews

The final selection of interviewees included:

1 ESRC Doctoral Training Centre (DTC) Director
1 representative from an Advanced Training Initiative (ATI)
1 representative from the UK Data Service (UKDS)
2 representatives from other major ESRC investments
3 online resources representatives
1 NCRM phase 3 node Director
2 representatives from Higher Education Institutions delivering TCB or CPD programmes
1 representative from a seasonal school
1 representative from government
3 representatives from the charity/ not-for-profit sector
1 representative from the private research sector
2 representatives from the Higher Education Academy (HEA)
2 strategic advisors to ESRC
1 representative from a non-social science research area
1 representative from ESRC training and skills Committee
1 representative of a learned society
1 focus group with representatives from the Administrative Data Research Network (ADRN) Training and Capacity Building group, including representatives from all 4 UK Nations

The interviewees were as follows:

1. **Athanasios Anastasiou**, member of the TCB ESRC Administrative Data Research Network Group, Wales representative
2. **Graeme Beale**, Principal Research Officer, Scottish Government
3. **Frances Burns**, Queen's University Belfast, member of the TCB ESRC Administrative Data Research Network Group, Northern Ireland representative
4. **Jenni Carr**, Academic Development Officer, HEA
5. **David De Roure**, Professor of e-Research, University of Oxford. Director of the Oxford e-Research Centre. Strategic Advisor to the ESRC in the area of Social Media Data
6. **Vernon Gayle**, Professor of Sociology and Social Statistics, Edinburgh University, member of the TCB ESRC Administrative Data Research Network Group, also co-investigator of NCRM, Scottish representative, also expertise on longitudinal data and strategic report on this topic to the ESRC
7. **Ed Hall**, Senior Lecturer, Geography School of the Environment, University of Dundee, Scottish DTC Summer School lead.
8. **Hazel Hall**, Professor of Social Informatics, Director of the Centre for Social Informatics within the Institute for Informatics and Digital Innovation at Edinburgh Napier University
9. **Vanessa Higgins**, Senior Research Fellow, University of Manchester, UKDS Director of User Support and Training.

10. **David James**, Professor in the School of Social Sciences, Cardiff University and Director of the Wales DTC
11. **Carey Jewitt**, Professor of Learning and Technology, IoE, PI on MODE: Multimodal Methods for Researching Digital Environments (NCRM ESRC, 2011-2014)
12. **Simone Lombardini**, Global Impact Evaluation Adviser, Oxfam
13. **Jennifer Mason**, Professor in Sociology, University of Manchester. Vice Chair of the ESRC Research Committee, and Chair of the ESRC Grants Delivery Group. Also an NCRM node PI
14. **Susan McVie**, Professor of Quantitative Criminology, University of Edinburgh. Director of the Applied Quantitative Methods Network (AQMeN), member of ESRC Training and Skills Committee
15. **Alison Mitchell**, Director of Development, Vitae
16. **Kingsley Purdam**, lecturer, University of Manchester. Former Director of Postgraduate Teaching (SRMS MSc) and the Short Course Programme Director. Director of Academic Staff Training
17. **Gillian Rose**, Professor of Cultural Geography, PI of an ESRC Advanced Training Initiative: Advancing Image Elicitation Methods in the Social Sciences
18. **Jane Seale**, Professor of Inclusive Education, University of Exeter. Online resources expertise
19. **Patten Smith**, Research Director, Ipsos MORI; Chair of the Social Research Association (SRA) Board of Trustees
20. **Mike Wallace**, Professor of Public Management, Cardiff University. ESRC Strategic Advisor for Researcher Development 2009-2012. Former NCRM ReStore advisory committee member
21. **Kandy Woodfield**, Learning and Enterprise Director, NatCen Social Research

Please note that any views expressed by the interviewees reflect their personal views and not the views of their organisation or representation.

Background to interviews and recruitment

Interviewees were approached via email and invited to participate. Up to 2 follow-up emails were sent if those approached did not initially respond. If an individual was unable to participate, another individual fitting the same role criteria was approached. Interviewees were sent an information sheet providing details about the consultation, consent to participate and outlining the questions they would be asked. Interviews were generally 30 minutes long and conducted via telephone or skype at a time convenient to the interviewee. At the start of each interview, participants were asked for verbal consent to participate and to be recorded (see Appendix B for the interview schedule including consent). Notes were written up by the interviewer using the recording (not verbatim) and the interviewees had the opportunity to see these notes and comment on them if they wished. Notes from the interviews and focus group were collated and thematic analysis was undertaken.

Ethical approval was gained for the interviews and the online survey via the University of Southampton: Social Sciences, Education, Geography and Mathematics sub-committee: Ethics numbers: 13676 and 14163

12.2 Appendix B: Interview Schedule for consultations

Interview Schedule 2015

CONSENT:

Can I start by asking if you have read and understood the information sheet we emailed on DATE? Have you any questions you would like to ask about the interview or your data?

Do you agree to take part in the consultation and for your data to be recorded and used for the purpose of this study only? We will use the recordings only to assist the write up of the summary of this interview; the recordings will not be made public.

Do you consent to having your interview audio-recorded?

Would you like your name to be included in the list of contributors on the Final report?

Do you understand that you are free to withdraw consent at any time without your legal rights being affected? You may also indicate if there are any comments which you would like to be 'off the record' and these will not be included in the consultation.

I want to ask you about some particular issues relating to training and capacity building in advanced research methods for social scientists. We will focus on questions around the changing UK methods landscape and of where capacity is lacking and of how identified under-capacity should best be addressed.

INTERVIEW:

Strategic:

1. **Explore the UK infrastructure in advanced methods training:**
    a. Who do you think are the key players in advanced methods training in the UK?
    b. How well do you feel the current ESRC provision of advanced methods training is working overall?
    c. How could the infrastructure in advanced methods training be strengthened?
    d. What future role should the NCRM play in this infrastructure?
    e. What for you are the main expectations and challenges in relation to future development in advanced methods training in the UK?

Aspects to explore:

- *How well do you feel the current DTC provision of advanced training is working and what could be improved? (e.g. better coordination and <u>how</u> this could be achieved)?*
- *<u>How</u> could a better coordination between the ESRC training providers be achieved (if regarded as desirable)*

What:

2. **Explore broad areas of training/ topics:**
    a. In which broad areas do we need training (also with respect to meeting ESRC's strategic priorities) and where are any training gaps?
    b. Are there new emerging topics in advanced methods we need training in? *(e.g. obvious are biosocial, use of linked datasources, Big data, social media data; but other topics also of interest to tease out)*

How:

3. **Mode of delivery** (face-to-face short courses; online; blended learning):
   What do you think is the best way of delivering advanced RM training to researchers?
    a. Traditional short courses (pros and cons)
    b. Online training (pros and cons)
       Other types of models (e.g., apprenticeship models, others?)

4. **What are best ways of going about increasing capacity in a particular area** (specifically in the areas you have identified above), e.g.
    a. Putting on new and more courses in a particular area
    b. Bringing together researchers from across disciplines
    c. Training particular groups *(e.g. focus also on mid career researchers)*
    d. Other?

5. **Are there any other issues** you would like to raise in relation to training in research methods?

FOLLOW-UP:

I will now write up the key points from this interview into notes which may also include a few relevant direct quotes (if recorded). These will be collated and may be used in the final report.

Would you like be sent a copy of these notes to check?

12.3 Appendix C: Further information about the doctoral student survey and background of participants

The survey was set up using the online survey software LimeSurvey. Respondents were asked some background questions followed by questions about their methods training to date, plans for the future, preferred mode of training delivery and barriers to training they had experienced. Participants also had the opportunity to write freely in a comment box on any other issues regarding training they wished to raise. (See Appendix C for the full survey questionnaire.)

The majority of respondents (87%) were registered as full-time and the remainder (13%) as part-time. The majority of respondents had funding for their PhD, with 180 (48%) being funded through an ESRC Doctoral Training Centre (DTC), 133 (36%) having another source of funding, and 61 (16%) self-funded students. Representation of PhD students was evenly spread across the years of study, with a third of students in their 1st, a third in their second, and a third in their 3rd or 4th years and beyond. The spread of students across the DTCs was uneven with students from only 12 of 21 DTCs participating (despite several reminders being sent to ESRC and subsequently to DTCs). As with the DTCs, the spread of students amongst institutions is not even, with a number of institutions only having one or two students responding and some institutions represented with more than 20, very likely reflecting how active the DTCs were in encouraging their students to respond, if they forwarded the request to respond to the survey at all. A good range of disciplinary affiliations were represented in the sample.

Table 12.1: Year of study of survey participants (n= 374)

Year of Study	n	%
1st	125	33
2nd	129	34
3rd	70	19
4th	34	9
5th	10	3
more than 5	6	2
Total	374	100

Table 12.2: Institutions students were registered at

Institution	n	%
Cardiff University	1	0.3
Dundee University	1	0.3
Heriot-Watt University	1	0.3
King's College London	3	0.8
Lancaster University	35	9.4
London School of Economics and Political Science (LSE)	49	13.1
University College London (UCL)	1	0.3
University of Edinburgh	18	4.8
University of Glasgow	11	2.9
University of Kent	26	7.0
University of Leeds	47	12.6
University of Liverpool	8	2.1
University of Manchester	34	9.1
University of Nottingham	21	5.6
University of Sheffield	63	16.8
University of Southampton	2	0.5
University of St Andrews	3	0.8
University of Stirling	4	1.1
University of Strathclyde	2	0.5
University of Sussex	5	1.3
University of Warwick	1	0.3
University of York	36	9.6
Unknown	2	0.5
Total	374	100

Table 12.3: the number of ESRC funded students from each ESRC DTC

Doctoral Training Centre	n
Kings College London	2
London School of Economics and Political Science	21
North West Consortium	40
Scottish Consortium	39
South East Consortium	6
University College London	1
University of Nottingham	21
University of Southampton	2
University of Sussex	4
University of Warwick	1
Wales Consortium	1
White Rose Consortium	42
Total	180

Table 12.4: Main disciplinary affiliation

Discipline	Count	Percentage
Area Studies	5	1.34
Demography	3	0.80
Economic and Social History	10	2.67
Economics	26	6.95
Education	42	11.23
Environmental Planning	4	1.07
Human Geography	17	4.55
Linguistics	13	3.48
Management and Business Studies	36	9.63
Political Science and International Studies	45	12.03
Psychology	28	7.49
Social Anthropology	8	2.14
Social Policy	15	4.01
Social Work	5	1.34
Socio-Legal Studies	17	4.55
Sociology	20	5.35
Science and Technology Studies	8	2.14
Statistics, Methods and Computing	7	1.87
Other	65	17.38
Total	374	100

Note: Of those who stated their discipline was 'other': 21 were health related, 9 from arts or literature, 7 related to geography and the environment, 4 to information studies, 3 to history and 2 to cultural practice. A further 7 individual disciplines including anthropology, arthropology and philosophy remained.

12.4 Appendix D: Online Survey Questionnaire for Doctoral Students

ESRC DTC PhD Student Training Needs Consultation Online Survey

The ESRC National Centre for Research Methods (NCRM) is conducting a consultation to assess the research methods training needs of the UK social science community. A key group in relation to this planning are Doctoral students.

The following questionnaire asks about your PhD registration, the methods training you have undertaken, future training needs and any barriers to training. The survey has been sent to a selection of UK PhD students and should take no longer than 10 minutes to complete.

The survey is anonymous. The information collected will be used as part of a UK Training Needs Assessment which will inform future training provision by the ESRC. It will not be possible to identify any individuals or individual institutions in this report.

By agreeing to participate in this survey, you are giving consent for us to use your questionnaire data as described above. You may withdraw from the survey at any point.

There are 25 questions in this survey

1) Which of the following best describes your circumstances? *
   Please choose **only one** of the following:
   I'm registered as a full-time doctoral student
   I'm registered as a part-time doctoral student
   Other [survey ends for this group]

2) How is your PhD funded?
   Through an ESRC Doctoral Training Centre (DTC)
   Self-funded – *go to Q3*
   Other funder - *go to Q3*

2b) Which DTC are you registered at?
   Bloomsbury Consortium
   Kings College London – *go to Q4*
   London Business School – *go to Q4*
   North East Consortium
   North West Consortium
   Queen Mary and Goldsmiths
   Scottish Consortium
   South East Consortium
   South West Consortium
   University of Birmingham – *go to Q4*
   University of Cambridge – *go to Q4*
   University of Essex – *go to Q4*
   University of Nottingham – *go to Q4*
   University of Oxford – *go to Q4*
   University of Southampton – *go to Q4*
   University of Sussex – *go to Q4*
   University of Warwick – *go to Q4*
   Wales Consortium
   White Rose Consortium
   University College London – *go to Q4*
   London School of Economics and Political Science – *go to Q4*

3) Which Institution/ University are you registered at?
Please write your answer here:

4) Which Year of study are you in?
1st
2nd
3rd
4th
5th
more than 5

5) Do you have funding available to you to support training activities during your PhD?
Yes
No
I'm not sure

6) Into which of these disciplines does your research mainly fall?
Please choose **only one** of the following:
Area Studies
Demography
Economic and Social History
Economics
Education
Environmental Planning
Human Geography
Linguistics
Management and Business Studies
Political Science and International Studies
Psychology
Social Anthropology
Social Policy
Social Work
Socio-Legal Studies
Sociology
Science and Technology Studies
Statistics, Methods and Computing
Other (please state):

7) In the past 12 months have you received any training in advanced research methods or practice? Please choose only one of the following:
Yes – *go to Q8*
No – *go to Q9*

8) If YES, who provided this training? Select all that apply:
The University/college where I am studying
My Doctoral Training Centre
Another Doctoral Training Centre
ESRC (e.g. National Centre for Research Methods)
Other University courses
My employer
Social Research Association (SRA)
Market Research Society (MRS)
Online training provider – *go to Q8b*
Other, please specify:

8b) Which online training provider did you use?
Please write your answer here:

9) Which of the following areas of Quantitative Methods do you intend to seek training in during the next 12 months? Please indicate if you will be seeking it at an introductory, intermediate, or advanced level. Please leave items blank where you won't be seeking training in that area. Select all that apply on each line.
Categories: Introductory, Intermediate, Advanced

- Administrative data analysis
- Agent-based modelling
- Analysing complex survey designs
- Bayesian analysis
- Big data (data collection or analysis)
- Causal analysis
- Correspondence analysis
- Data Linkage Methods/ Data Matching
- Data mining
- Event History modelling
- Factor/Principal Components Analysis
- Generalised Linear Models (logit/probit)
- Growth curves
- Instrumental Variables Methods
- Latent Class Analysis
- Linear Regression
- Log-linear modelling of tables
- Longitudinal data analysis
- Mathematics for statistics
- Modelling of rates and counts
- Multi-level modelling
- Network analysis
- Non-response Handling
- Panel data analysis
- Quantitative data collection methods (e.g questionnaire design)
- Social Media (data collection or analysis)
- Spatial analysis
- Statistical simulation
- Structural equation modelling
- Survey sampling
- Survival analysis
- Time-series analysis

9b) Are there any other Quantitative Methods that you would like to receive training in (ideally within the next 12-18 months)?

10) Which of the following areas of Qualitative or Mixed Methods do you intend to seek training in during the next 12 months? Please indicate if you will be seeking it at an introductory, intermediate, or advanced level. Please leave items blank where you won't be seeking training in that area. Select all that apply on each line.
Categories: Introductory, Intermediate, Advanced

- Action Research
- Biographical research
- Case Study
- Computer-Assisted Qualitative Data Analysis (CAQDAS)
- Conversation Analysis
- Discourse Analysis
- Documentary Analysis
- Ethnographic Fieldwork
- Evaluation Methods
- Focus Groups
- Grounded Theory
- Interpretative Phenomenological Analysis
- Life History
- Mixed Methods
- Multimodal analysis

Narrative Inquiry
Participatory Methods
Phenomenology
Qualitative Comparative Analysis
Qualitative GIS
Qualitative interviewing
Qualitative Longitudinal Analysis
Secondary analysis of Qualitative Data
Visual, Creative and Sensory Methods
Other (please specify)

10b) Are there any other Qualitative or Mixed Methods that you would like to receive training in (ideally within the next 12-18 months)?

11) To what extent would you find the following modes of training in advanced research methods effective?

Categories: Very effective, quite effective, somewhat effective, not at all effective, I don't know.

Face-to-face short course
Online training with a reputable training body
Blended training with materials online prior to/following a face-to-face course
Formal research-based support or mentoring
Experiential learning through active involvement in a research project

12) Have you attended/undertaken any other forms of training that you have found particularly effective? If so, please state what they were: _____

13) Have you experienced any barriers to accessing research methods training while undertaking your PhD?
Yes – *Go to Q14*
No – *Go to Q15*

14) What were these barriers? Select all that apply
Looking for but not finding any suitable training
Training being available but not when you needed it
Not finding out about the training until it was too late
The training venue being too far away
Training that requires an overnight stay, which you cannot do
Not being able to spare the time away from your work/research
Not having access to funding to pay fees and/or expenses
Direct and/or associated costs were too high
The software used in the training was not the one you wanted to use
Other_____

15) How have you assessed your training needs in relation to research methods?
In a formal needs assessment with my supervisor(s)
Informally with my supervisor(s)
Formally or informally with someone else more senior than I am from the DTC or my institution
I decided what research methods training I needed myself
I've not considered any research methods training yet
Other_____

16) We would like to end this survey by giving you the opportunity to express any final thoughts you may have on the training needs of social science PhD students and how these might be met in future.
Please write your answer here:[text box]

12.5 Appendix E: Background characteristics of participants in SRA online survey

There were in total 209 responses to the survey. Of these about 70% were female, 54% were employed full-time and 18% were self-employed or freelance. Most were experienced researchers with 74% having been involved in social research for 5 or more years and about 55% for 10 or more years.

Table 12.5: The types of organisation employing SRA members

Type of Organisation	n	%
Academic/Educational	17	12
Research agency	27	20
Social research organisation/institute	18	13
Charitable/Voluntary/Third sector/NGO	22	16
Central Government	21	15
Government agency/NGDP	16	12
Local Government	7	5
Professional association	1	1
Other commercial business	3	2
Other	5	4

Table 12.6: The types of organisation SRA members were employed by

Type of Organisation	n	%
Academic/Educational	17	12
Research agency	27	20
Social research organisation/institute	18	13
Charitable/Voluntary/Third sector/NGO	22	16
Central Government	21	15
Government agency/NGDP	16	12
Local Government	7	5
Professional association	1	1
Other commercial business	3	2
Other	5	4

12.6 Appendix F: Questions which formed part of the 2014 Social Research Association (SRA) Annual Online Survey

In the past 12 months have you received any training in research methods or practice?
Yes
No
Not sure

Who provided this training? Select all that apply
My employer
Social Research Association
ESRC (eg. National Centre for Research Methods)
Market Research Society (MRS)
The University/college where I am studying
Other University courses
Online training provider. [Write in:_____]
Other: [Write in:_____]
Not sure

Which of the following areas of Quantitative Methods do you intend to seek training in during the next 12 months? Please indicate if you will be seeking it at an introductory, intermediate, or advanced level. Please leave items blank where you won't be seeking training in that area. Select all that apply on each line.

Categories: Introductory, Intermediate, Advanced

Agent-based modelling
Analysing complex survey designs
Bayesian analysis
Causal analysis
Correspondence analysis
Data mining
Event history modelling
Factor/Principal components analysis
Generalised linear models (logit/probit)
Growth curves
Impact evaluation
Instrumental variables methods
Latent class analysis
Linear regression
Log-linear modelling of tables
Longitudinal data analysis
Mathematics for statistics
Modelling of rates and counts
Multi-level modelling
Network analysis
Non-response handling
Panel data analysis
Spatial analysis

Statistical simulation
Structural equation modelling
Survival analysis
Survey sampling
Survey weighting
Time-series analysis

Which of the following areas of Qualitative Methods do you intend to seek training in during the next 12 months? Please indicate if you will seeking it at an introductory, intermediate, or advanced level. Please leave items blank where you won't be seeking training in that area. Select all that apply on each line.

Categories: Introductory, Intermediate, Advanced

Action research
Biographical research
Case study
Computer-assisted qualitative data analysis (CAQDAS)
Conversation analysis
Discourse analysis
Documentary analysis
Ethnographic fieldwork
Evaluation methods
Focus groups
Grounded theory
Interpretative phenomenological analysis
Life history
Mixed methods
Narrative inquiry
Participatory methods
Phenomenology
Qualitative comparative analysis
Qualitative GIS (geographic information systems)
Qualitative interviewing
Secondary analysis of qualitative data
Visual, creative and sensory methods

To what extent would you find the following modes of training useful? If not applicable please click the Next button

Categories: Very Useful, Quite Useful, Somewhat Useful, Not at all Useful, Don't Know

Face-to-face short course
Online training with a reputable training body
Blended training with materials online prior to/following a face-to-face course
Formal work-based support or mentoring
Experiential learning through active involvement in a research project

In the last 12 months have you experienced any barriers to accessing research methods training?

Yes

No

Not sure

Not applicable

(If YES) What were these barriers? Select all that apply

Looking for but not finding any suitable training

Training being available but not when you needed it

The training venue being too far way

Training that requires an overnight stay, which you cannot do

Not being able to spare the time away from your work

Not having funding to pay fees and/or expenses

Your employer being unwilling to let you undertake training

Direct and/or associated costs were too high

The software used in the training was not available at your place of work

Other. [Write in:_____]

BACKGROUND VARIABLES

Where do you live?

East of England

Greater London

Midlands

North East England

North West England

South East England

South West England

Yorks [AND] Humber

Wales

Scotland

Northern Ireland

Eire

Rest of Europe

Rest of the world

How long have you been involved in social research?

Less than 1 year

1-2 years

3-5 years

5-9 years

10 years or more

Are you:
Male
Female

What is your employment status?
Employed full time
Employed part time (<25hrs a week)
Self-employed/freelance/Independent
Student
Retired
Unwaged

Which type of organisation are you employed by? If more than one, please choose the main one
Academic/Educational
Research agency
Social research organisation/institute
Charitable/Voluntary/Third sector/NGO
Central Government
Government agency/NGDP
Local Government
Professional association
Other commercial business
Other. Please write in:

Other organisation: [Write in:_____]

12.7 Appendix G: ESRC Future Research Leaders Event Workshop Outline, February 2015

(Still) developing yourself as a researcher: methods training over the academic life course

Quick Questions

- Do you feel that you've already had enough research methods training for what you need for your career in research?
- Do you feel that you've had not enough of training in some fields but too much in some other fields (e.g. too much qualitative training and not enough quantitative, or too much quantitative and not enough qualitative)?
- Do you feel that the balance of training provision between introductory, intermediate and advanced is about right? Of those not feeling this, how many would like to see more advanced (specialised) training?
- Have you accessed virtual learning resources? If so, have you made use of the things you learned from them in your research? And how many of you have been on virtual training *courses*?
- Have you been on face-to-face training where you've been helped by a question being asked by another person on the course (and the answer given by the presenter!)?
- Have you had experience of some of your training coming too soon in your careers? And how many of you have had experience of training coming later than it would have been ideal to have had it?
- Are you guided in your choice of training by what you *want* to do more than by what other people (PhD supervisors in the past, senior colleagues now) tell you that you *need* to do?
- Do you prefer to be in training sessions with others from your particular academic discipline rather than in interdisciplinary groups?

The questions we would like you to discuss on your table are:

1) What is the majority view on your table about the ideal number of working days across a year for you at your current career stage to be spending on research methods training? (please take 225 working days as the full-time annual norm, and give either a number or a range)
2) Do you or your peers reach this level? To the extent that you or your peers don't reach this level, what reasons would you give for not doing more than you do? Please place in rank order (with most important first): training needed is not available within reasonable travelling distance; training needed is not available at all; lack of time because busy with other things; advertising of training is not sufficiently in advance of the date of the training to allow for attending to be planned; training available is too expensive; other (please specify)
3) Are you looking at this stage in your careers to undertake training primarily to increase the breadth of your methodological skills and understanding, or its depth in your specialised field?
4) In what ways are you virtual learners: Have you undertaken an on-line training course? Have you used on-line resources independently of a course to improve your research practice?
5) Are there particular topics where more training provision is needed? (If yes, what are they?)
6) Does your training increasingly take you beyond your home discipline?
7) Is the training that you *want* to do distinct from the training that you are advised you *need* to do?
8) Is there anything else you would like to say about training needs? (if yes, what?)