



# **ESRC National Centre for Research Methods**

# Assessing the impact of NCRM's Training and Capacity Building Activities 2009-2011

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# **Executive Summary**

Between April 2009 and March 2011 the National Centre for Research Methods (NCRM) delivered 124 short course training events, along with an online training course in multilevel modelling developed by NCRM's LEMMA node. A total of 2,773 people registered for the training events while 883 registered for the online course. 990 of the event registrants and 243 of the online course registrants responded to an online survey on the impact of NCRM's training. The survey sought to establish why they registered, what benefits they felt they obtained, the use they made of what they learned and whether they felt better able to do research as a result. A small sample of those who attended training events were asked to participate in follow-up telephone interviews that examined in more depth the use they had made of the training.

Eighty six percent of those who registered for events attended, while 79% of those who registered for the online training spent time on the course (fifteen hours on average). The samples in both surveys were predominantly female and were mostly postgraduate and early career researchers. The vast majority were employed (or studied) in universities or colleges and were mostly social scientists, although researchers from medical sciences were well represented both at the training events and on the online course. Sociology, psychology and social policy were the most strongly represented social science disciplines at training events, while psychology, statistics methods and computing and education were the most common among users of the online training. In addition to these strongly represented disciplines it should be stressed that the range of researcher disciplines at NCRM events and on the online training was much broader then merely those of the providers, who succeeded in reaching out to many researchers beyond their own disciplines

The most common reasons given for attending NCRM events were a) to learn about developments in a particular area of research methods, b) to find out about a particular research method and how it might be used in future research and c) to learn methods necessary to conduct a specific research task. Those using the online training were less likely to offer 'learning about developments in the area' as a reason, but were more likely to suggest learning methods to conduct a specific research task.

More than 95% of respondents said they had benefited from the training, mostly through a) having opportunities for clarification and reflection, b) increased knowledge about research methods, and c) through the provision of useful references and other resources. The chance for engagement with course tutors or event leaders was also seen as a key benefit, and among users of the LEMMA online course an increased ability to do research was particularly valued.

Fifty seven percent of respondents who attended events and 85% of those who used the LEMMA online course said they subsequently used what they had learned, mostly in research projects but also in research proposals and in teaching & supervision. 44% of junior researchers said they had used what they learned in research projects and 16% of this group said this work was subsequently published. For more senior researchers, around half of the professors, readers, heads of units and directors said they had used what they learned in research projects and just under a quarter of this group said this work was published.

More than seventy percent of respondents who attended NCRM events described the training as very useful or quite useful, while more than 90% felt this way about the LEMMA Online course.

Researchers' reasons for attending NCRM events are varied and providers should bear this in mind when planning training. Researchers who are new to a field want broad overviews, while the more experienced want to hear about the latest developments. Many want to apply the methods to specific tasks they have in mind. Some also think in terms of skills, rather than methods and seek skills training that may be applicable to a wide range of methods.

The success and popularity of the LEMMA Online course augers well for online training by NCRM in future, as this course impacts positively on social science research work, both in terms of project work undertaken and in terms of subsequent publication.

# 1. Introduction

In funding resource centres such as the National Centre for Research Methods (NCRM) ESRC seeks to support the highest quality research and to train researchers of the future, researchers who have the methods, data and other resources they need to gain insights into economic and social questions that impact upon society.

Through its capacity building remit NCRM seeks to improve the range and quality of research methods used by social science researchers. One of the key means of achieving this is through the Centre's training and capacity building programme. Each year the Centre (comprising Hub and Nodes) offers a programme of training that draws on methodological developments arising from the Node's research programmes, as well as training designed to meet the additional needs identified in our training needs assessments (Wiles et al., 2005; Wiles et al., 2008; Moley & Wiles, 2011).

This is NCRM's third biennial impact assessment of its capacity building activity and covers the period April 2009 to March 2011.

# Aims of the impact assessment

The impact assessment seeks to establish the reasons why researchers attend our events and register for our online provision. It enquires as to the range of benefits they feel they obtain, the use they make of what they learn and whether they feel better able to do research as a result.

With regard to the use researchers make of what they learn, the focus is on the use they make in research projects, in writing research proposals, in teaching and in the supervision of students. Where researchers have used what they learned in research projects we ask whether the work was published or submitted for publication. Where it was used in writing proposals we ask whether this proposal was granted funding or submitted to a funding body.

This impact assessment will inform NCRM's strategic planning of its training and other capacity building activities as well as the wider national strategy to develop the social science research community's research capacity.

# 2. Methods and data

The impact assessment is based primarily on a survey of registrants for NCRM training events that took place within the period April 2009 to March 2011 (see Appendix 1 for the questionnaire).

Further supporting information is provided by;

- 1. follow-up telephone interviews with some of those who attended NCRM training events and completed the survey
- 2. a separate survey of those who registered as users of an NCRM-funded online training course, within the same period of April 2009 to March 2011 (see Appendix 2 for the questionnaire).

The follow up telephone interviews provided some further qualitative data on the use attendees make of events and focused on a sub-sample of survey respondents who had reported that they either a) used what they learned at NCRM events in work that was published or submitted for publication or b) used what they learned at NCRM events in writing proposals that were granted funding or were submitted to a funding body.

One NCRM node (LEMMA at the University of Bristol) provides an online course in multilevel modelling (see <u>http://www.bristol.ac.uk/cmm/learning/course.html</u>). An online survey of currently registered users of the LEMMA online course was conducted using a slightly amended questionnaire.

These methods were chosen to maintain broad comparability with earlier impact assessments, while providing the flexibility to address new and emerging issues. The rationale for undertaking these linked strands was that the main survey would give us a good overall picture of the benefits of our training and a sense of how it was being used, while the telephone interviews would provide illustrative case studies of researchers who are making specific use of NCRM training. The survey of users of online training allowed us to gain specific feedback from those who had an online learning experience.

# The main survey

The survey ran for three weeks from May 16<sup>th</sup> to June 3<sup>rd</sup> 2011. On Monday May 16<sup>th</sup> personalised invitation emails were sent to all researchers who were registered for NCRM events that had taken place within the period April 2009 to March 2011. To jog recipients' memories and help avoid possible confusion with other training events, these emails began by confirming the title, start date and duration of the NCRM event in question, as well as who organised it and the venue where the event was held. Similarly detailed personalised email reminders were sent one week later to all those who had yet to complete the survey. Final reminders were sent on May 30th 2011.

# The follow-up telephone interviews

Questions 9 and 10 from the online questionnaire (see Appendix 1) ask whether respondents used the methods covered in the event they attended and if so, whether these were used in a research project or research proposal. Questions 11 and 12 are follow up questions that ask whether the research was published or submitted for

publication and whether the proposals had been either granted funding or submitted to a funding body.

Respondents who answered 'yes' to either Questions 11 or 12 were asked at the end of the survey if they would be prepared to participate in a follow-up telephone interview. Those who agreed were asked to provide an email address and a sample of respondents was subsequently contacted to arrange interviews.

Of the 40 people who expressed a willingness to be interviewed, eight people were contacted and seven interviews were conducted. Interviewees comprised: 1 PhD student; 1 research fellow; 2 lecturers; 1 senior lecturer; 1 reader and 1 researcher working in an independent research centre outside of academia. These interviewees had attended a range of NCRM events. Illustrative case studies of five of these individuals are included in this report.

# The survey of registered users of the LEMMA online course

The survey of users of the LEMMA online course ran for three weeks from June 6<sup>th</sup> to June 24<sup>th</sup> 2011. On Monday June 6<sup>th</sup> personalised invitation emails were sent to all researchers who were UK-based registered users of the online training course and who had logged in between April 2009 to March 2011. Personalised email reminders were sent one week later to all those who had yet to complete the survey. Final reminders were sent on June 20th 2011.

# 3. Results – Part 1

# The main survey and supporting follow-up telephone interviews

## **Response and breakoff rates**

Contact data was obtained for 2,773 registrants for a total of 124 NCRM events that took place over the period April 2009 to March 2011. Of the 2,773 email invitations sent 162 were returned as undeliverable. Assuming the remaining 2,611 were delivered the 990 responses received represents a minimum response rate of 38%<sup>1</sup>. Only 5% of the responses received were incomplete. This represents a relatively low breakoff rate compared to median breakoff rates of 16% reported in the literature (see Musch and Reips 2000). Twenty two respondents chose to formally opt out of the survey using a specially provided link on the 'Online Consent Form' (see Appendix 1).

## Attendance at NCRM events

The main questionnaire begins by asking respondents whether they attended the event for which they were registered. As Table 1 illustrates a large majority had attended (85.9%) Just under one tenth (9.9%) had registered but not attended and a further 4.3% specified 'Other' reasons for non-attendance (most explaining that they had been ill on the day in question).

	Count	Percentage
Attended	826	85.9%
Registered, but did not attend	95	9.9%
Other	41	4.3%
No answer <sup>2</sup>	3	
Not asked <sup>3</sup>	25	
Total	990	100.00%

#### Table 1: Confirmation of attendance at NCRM events

<sup>&</sup>lt;sup>1</sup> In the previous 2007-2009 survey the response rate was 35%, with 479 responses received, while in the 2005-2007 survey the response rate was 30% with 277 responses received.

<sup>&</sup>lt;sup>2</sup> Three respondents broke off at the point in the questionnaire where the first question was displayed and gave 'no answer'.

<sup>&</sup>lt;sup>3</sup> In addition to the twenty two who formally opted out of the survey twenty five respondents were 'not asked' the first question because they had already broken off from the questionnaire before this first question was displayed. These might be considered to have informally opted out of the survey by closing their browser rather than using the link provided.

# **Sample Characteristics**

Of those who responded to the online questionnaire, almost two thirds were female (65.4%) and just over one third (34.6%) were male. 41.8% were in the 26-35 yr old age band (see Table 2).

	Count	Percentage
18 to 25	42	5.2%
26 to 35	336	41.8%
36 to 45	235	29.3%
46 to 55	129	16.1%
56 to 65	53	6.6%
66+	8	1.0%
No answer	9	
Not asked	178	
Total	990	100.00%

Table 2: Age profile of attendees at NCRM events

Table 3 shows which sector respondents were employed or studied in at the time they attended the event. By far the largest category is academic employment or study in a University or College (82.4%).

	Count	Percentage
University or College	678	82.4%
Research Institute	28	3.4%
Government	53	6.4%
Private Sector	19	2.3%
Voluntary Sector	14	1.7%
Freelance	10	1.2%
Other	21	2.6%
No answer	2	
Not asked	165	
Total	990	100.00%

Table 3: Sectors of employment or study of attendees at NCRM events

Respondents' career stage at the time of the event is shown in Table 4. Postgraduate students and junior researchers make up more than two thirds of respondents, although the representation from senior researchers who responded is still quite large with 123 senior researchers indicating they attend events.

	Count	Percentage
Postgraduate Student	316	38.4%
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	261	31.7%
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	123	14.9%
Professor / Reader / Head of Unit / Director	51	6.2%
Other	72	8.7%
No answer	2	
Not asked	165	
Total	990	100.00%

#### Table 4: Career Stages of attendees at NCRM events

The primary fields of study of respondents are shown in Table 5 below. Social sciences predominate, as would be expected, but medical sciences also have notable representation, with over one tenth of respondents.

	Count	Percentage
Social Sciences	561	69.3%
Medical Sciences	87	10.7%
Arts and Humanities	40	4.9%
Engineering and Physical Sciences (includes Astronomy and Particle Physics)	17	2.1%
Biological Sciences	16	2.0%
Environmental Science	13	1.6%
Other	76	9.4%
Not asked	180	
Total	990	100.00%

#### Table 5: Fields of Study of attendees at NCRM events

Within social science, sociology and psychology are the two best represented disciplines among respondents (see Table 6).

	Count	Percentage
Sociology	141	25.1%
Psychology	73	13.0%
Social Policy	47	8.4%
Statistics, Methods and Computing	44	7.8%
Education	32	5.7%
Economics	31	5.5%
Human Geography	29	5.2%
Management and Business Studies	29	5.2%
Political Science and International Studies	28	5.0%
Social Anthropology	23	4.1%
Demography	19	3.4%
Social Work	9	1.6%
Socio-Legal Studies	5	0.9%
Economic and Social History	2	0.4%
Environmental Planning	2	0.4%
Linguistics	2	0.4%
Science and Technology Studies	2	0.4%
Area Studies	1	0.2%
Other	42	7.5%
Total	561	100.0%

## Table 6: The Social Science disciplines of attendees at NCRM events

The UK regional profile of respondents is shown in Table 7 while Table 8 shows where the non-UK respondents (n=52) were based at the time they attended.

	Count	Percentage
North West	167	20.5%
Greater London	130	16.0%
South East	125	15.4%
South West	69	8.5%
Yorkshire and the Humber	67	8.2%

	Count	Percentage
Scotland	45	5.5%
East of England	36	4.4%
West Midlands	35	4.3%
Wales	32	3.9%
East Midlands	19	2.3%
Northern Ireland	16	2.0%
North East	14	1.7%
Other	58	7.1%
Not asked	177	
Total	990	100.00%

Table 8: International profile of non-UK attendees at NCRM events

Country	Count	Country	Count
Republic of Ireland	9	Brazil	1
Netherlands	7	Canada	1
Germany	6	Denmark	1
Belgium	5	European Union	1
Australia	3	France	1
Finland	3	Greece	1
New Zealand	2	Hungary	1
Portugal	2	Japan	1
Spain	2	Kenya	1
Switzerland	2	Sweden	1
Austria	1	Total	52

# **Reasons for Attending NCRM Events**

Table 9 reports respondents' reasons for attending NCRM events. Overall the most common responses were 'to learn about developments in a particular area of research methods' (46.1%) and to 'find out about a particular research method and how I might use it in future research' (46.1%). 44.4% of respondents said they attended 'to learn methods necessary to conduct a specific research task'.

Reasons for attending	Count	Percentage
To learn about developments in a particular area of research methods	381	46.1%
To find out about a particular research method and how I might use it in future research	381	46.1%
To learn methods necessary to conduct a specific research task	367	44.4%
To gain methodological resources such as reading lists, other documents and links that I use or plan to use	260	31.5%
To assess the feasibility of using a particular method for a specific research task	234	28.3%
Other reason(s)	80	9.7%

#### Table 9: Reasons for attending NCRM events

(Denominator = 826, the number who attended events)

Those who chose to offer 'Other' reasons for attending the event often saw the training as a good opportunity for networking. Many also had some part in presenting the event and were interested in the topic in general. A general interest in the topic as a whole, rather than just the methods was often mentioned as an 'Other' reason for attending. Some respondents also drew a distinction between methods and skills and between methods and tool use (often making particular reference to computer software tools such as SPSS and STATA) and indicating that they attended in order to develop certain skills or learn to use particular research tools. Some respondents indicated that they attended as a way of gaining inspiration from the teaching of particular experts who were delivering the training – academics whom they respected. Others indicated it was an opportunity to refresh their memory of specific research methods.

The following excerpt from one of those interviewed in a follow-up telephone interview illustrates some of these issues

"I went on Roger Tourangeau's psychology of survey response course. I work in an organisation where the work we do is cognitive testing, so the theories behind the psychology of survey response, so part of the reason for going on the course was consolidating the things I already knew about it but also to pick up tips and references for articles that I may not have come across so that was my main motivation. So it was to confirm things, we often refer to Roger's texts, he is quite well known, so the chance to hear him speak was good to give me some pointers.

A lot of the course was repeating things that I knew already, through having read his text and doing this type of work ourselves. The most interesting bits for me were demonstrations of research Roger is doing himself and how he is applying it. The theory wasn't that new for me personally because we do that kind of stuff everyday but the actual examples that he was using, so some of the experiments that he's run that haven't been published yet, that was interesting to find out about. In terms of how I've used it, I've used the references he provided on the course and the studies that he talked about in my writing, if I see a parallel between something then I would say this was also discovered by Tourangeau in a certain paper and look it up in the references. For my own personal development it was useful because it was nice to go and see someone like Roger talk and to consolidate things you already know and to get references on what other people are doing."

Case 7, Senior Researcher, Independent Research Centre

## The benefits respondents feel they get from NCRM events

Table 10 shows respondents' views on whether they feel they benefited from the event they attended. The vast majority (95%) reported that they had. This proportion is roughly the same across career stages.

	Have you benefited?	
Career Stage	Yes	No
Postgraduate Student	301 (95.6%)	14 (4.4%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	241 (93.4%)	17 (6.6%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	118 (95.9%)	5 (4.1%)
Professor / Reader / Head of Unit / Director	50 (98.0%)	1 (2.0%)
Other	64 (92.8%)	5 (7.2%)

#### Table 10: Do attendees feel they benefit from NCRM events?

Those respondents who indicated they had benefited from the NCRM events they attended were asked to what extent they benefited in a number of specific ways. Table 11 below shows the results.

Ways of benefiting from NCRM events	Greatly	Significantly	Moderately	Slightly	Not at all	Not appropriate
Provided an opportunity for clarification and reflection	18%	48%	24%	7%	2%	1%
Increased knowledge about research methods	16%	44%	30%	7%	1%	2%
Provided useful references and other resources	15%	39%	29%	13%	3%	2%
Enabled engagement with course tutors / event leaders	15%	32%	28%	15%	5%	4%
Increased ability to do research	11%	26%	38%	14%	6%	6%
Provided networking opportunities with other attendees	11%	23%	29%	22%	11%	3%
Served as an input to teaching and supervision responsibilities	4%	12%	16%	16%	21%	30%

Table 11. Extent to which allendees benefit from NCRW events
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(Number of cases = 777, not asked = 213)

It is clear that providing an opportunity for clarification and reflection is a key benefit of NCRM training, with two thirds of respondents suggesting they benefited either greatly or significantly in this regard. Increased knowledge about research methods is also a key benefit many feel they obtain, with 60% indicating they benefited greatly or significantly in this way.

The following excerpt from one interviewee provides an illustration of the value given to the opportunity for clarification and reflection provided at NCRM events and how this was used, in this case, to develop research outputs. "I've been on about six of the events organised by Realities in Manchester but there were two in particular that I specifically picked up things from and have been using, one was 'researching nature' and the other 'researching the environment'. These two topics are very closely related to my own research so were very exciting to me and it is also very unusual to find events on these topics and they had a nice range of papers and discussions on both days.

I got a lot from attending those events, although it is of course hard to capture because it is rather intangible. Mainly for me it was an update for me to hear about people who had been doing research in these areas more recently and using different theoretical and methodological frameworks and making me think and rethink what I've done myself in my research. But it also relates to current research I'm doing and the presentations at the events helped me to think about my current project and it was useful to hear from people doing research currently on a related topic.

One of the most tangible things to come out of attending the events is that they got me thinking about writing a paper and I've now presented it at two conferences and I'm going to write it up, first as a working paper and then I'll submit it for publication. It's a paper on methods, about how methods are currently being used and what they do and don't do. It seems to me that there are several layers of things happening in methods at the moment, the turn to sensory methods, innovative methods, mobile methods and developments in digital methods and the overlapping conceptual and theoretical developments which all mean that the interview is falling out of favour. So the paper explores what the interview can still do, especially in research about nature. The events definitely crystallised my thinking about these things, while they were things I had been thinking about, the events definitely formed and shaped my thinking."

## Case 1, Research Fellow, University

Sixty seven respondents chose to add 'Other' ways in which they benefited from NCRM training and while many simply elaborated on the choices in Table 11 above some mentioned other benefits, such as the benefit of gaining an overview of current and emerging methods. Others said the event gave them confidence and inspiration and one said it helped put their research in context. A number of respondents mentioned the benefit of being able to do practical work with their own data as part of the event, with the support of the staff who were presenting.

Forty two respondents said they had not benefited from the event. The largest portion of these (n=17) indicated there had not been an opportunity for them to pursue issues or topics from the event in their research. Twelve said the training event was of poor quality, while eleven said it was either too advanced (n=6) or too basic (n=5). Two cited no post-course support as the reason why they had not benefited and one said it was too soon after the event to tell.

Nineteen respondents cited 'Other' reasons why they had not benefited. The most common reason given was that the content was too specific, while others said they could not see how they would apply the content of the training and what they had

learned to their work. Some also suggested their choice of event proved inappropriate and blamed what they felt were misleading titles and/or descriptions of the events.

## Making use of what was learned at NCRM events

An excerpt from one interviewee who attended a range of NCRM courses illustrates their general views about NCRM events and the use that this individual made of them.

"I've been on four courses, a CASS course on secondary analysis of datasets and three 'Methods in Dialogue' events at Manchester, one on researching diversity, one on researching class and one on researching sexuality. The CASS one I did because I had access to a large dataset that I wanted to work on but I hadn't done any secondary data analysis for ages so I wanted to recap so I could conduct the analysis. I produced a publication from that so attending the course enabled me to do that.

The events at Manchester, on all three occasions I went because they were my areas of interest, sexuality and diversity, and you don't often get a chance to talk about different methods on a topic. I went specifically to the one on diversity because I was completing a consultation for the Equalities and Human Rights Commission on how we collect monitoring information on children and young people and this event was addressing issues of that nature, specifically issues of ethnicity. I'm also writing a paper for submission to a sociology journal on how social science contributes to the way we create knowledge and how large data sets come about and that event helped me with that work too. It crystallised my thinking about the difficulties of making categories to categorise human behaviour and identities and what happens when we use those categories. I went to the sexuality event mainly because it's a good networking opportunity for me, as that is the area I work in. Also it's in the North of England so it's not too far to travel and it's not a massive time commitment, which matters. The one on class I went to again for the methodological debate about the different ways of researching and conceptualising class when we start applying them to difficult, more intersectional frameworks like sexuality and young people and that applies widely to the type of research I do, and also my teaching as well. So these events have helped to inform my work generally, as well as helping my thinking in terms of specific pieces of work.

So I've been to 3 of these events at Manchester and I could have gone to 4 because there was one on emotion I would have liked to have gone on. So they have a very wide appeal and are very relevant to me. And I trust the quality of them. That whole Centre is high quality, it's the first place I go to check if I am looking for something cutting edge or the most recent thinking, so there is that as well, you know when you go it will be good quality. They give you an opportunity that you don't seem to get anywhere else."

Case, 3, Lecturer, University.

In the main questionnaire respondents were asked whether they had used the methods covered by the NCRM event they attended. In all 444 respondents (57.5%) said they had.

Table 12 below shows a breakdown of respondents' career stages and whether they report making use of what they learned at NCRM events. The proportions at each career stage are similar, with the more senior researchers reporting slightly more use of what they learned than junior and postgraduate researchers did.

Career Stage	Made use of NCRM events
Postgraduate Student	172 (57.3%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	138 (57.7%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	72 (61.5%)
Professor / Reader / Head of Unit / Director	29 (59.2%)
Other	32 (50.0%)

Table 12: Whether use was made of NCRM events

Table 13 below shows a breakdown of the particular uses respondents made of what they learned at NCRM events. Most who responded used what they learned in a research project (83.3%), while 16.9% used it in a research proposal. Similar proportions (almost 12%) used it in teaching and the supervision of students.

	Count	Percentage
In a research project	370	83.3%
In a research proposal	75	16.9%
In teaching	53	11.9%
In the supervision of students	52	11.7%
Other	42	9.5%

Table 13: Uses made of learning from NCRM events

(Denominator = 444)

#### Using what was learned at NCRM events in research projects.

Table 14 provides a breakdown of respondents by career stage and whether they used what they had learned at NCRM events in research projects and whether this research was subsequently published or submitted for publication.

Half of the postgraduate students who attended NCRM events and responded to these questions indicated they had used what they learned from the training events in research projects, while just over ten percent said this research work had subsequently been published or submitted for publication.

The proportions of junior and senior researchers making use of what they learned at NCRM training events in research projects are similar (43.7% vs. 44.7%).

Career Stage	Used in research project	Published or submitted
Postgraduate Student	158 (50.0%)	34 (10.8%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	114 (43.7%)	41 (15.7%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	55 (44.7%)	12 (9.8%)
Professor / Reader / Head of Unit / Director	26 (51.0%)	12 (23.5%)
Other	17 (24.6%)	7 (10.1%)
Total	370 (45.1%)	106 (12.9%)

#### Table 14: Use of learning from NCRM events in research projects by career stage

By comparison, just over half (51%) of the professors, readers, heads of units and directors report having used what they learned at NCRM events in research projects, with a little under a quarter of them (23.5%) reporting that this work was published or submitted for publication. This degree of use and publishing activity is more than the data suggests is the case for senior researchers (44.7% using and 9.8% publishing or submitting) and junior researchers (43.7% using and 15.7% publishing or submitting). One might argue therefore that NCRM events are proving especially useful to the most senior researchers. This may be true, but it is likely that career stage and the work that is characteristic of different career stages has a lot to do with explaining this data.

Postgraduate students and junior researchers often work on projects but are not necessarily involved in publications stemming from them, and this may explain the figures in Table 14 above, where the amount published or submitted is markedly less than the amount of project work. The relatively small amount of activity from senior researchers may reflect the rarity of senior researchers within academia. Most of this group may in fact be senior lecturers, with large teaching commitments and relatively limited time for research.

The emerging pattern in Table 14 is more evident perhaps when we look at the use of what was learned at NCRM events with respect to years of experience (i.e., the number of years since they first gained a postgraduate qualification).

Figure 1 illustrates graphically how it is the relatively small number of more experienced researchers who report greater use of what was learned at NCRM events in research as well as greater publication activity. A relatively high proportion

(45.9%) of those with postgraduate qualifications for between one and five years report having used what they learned at NCRM events in research projects, but only fourteen percent of these researchers report that this work was published or submitted for publication.

Those respondents in mid career report relatively modest levels of use and publication activity in contrast to the high levels reported by the most experienced researchers, those who had held postgraduate qualifications for between twenty one and twenty five years (52.6% using and 31.6% publishing or submitting) and between twenty six and thirty years (80% using and 30% publishing or submitting).





<sup>&</sup>lt;sup>4</sup> Figure 1 makes no mention of current postgraduate students because it was evident from the data that many did not answer the question (see Appendix 1, Question 20)

One of the interviewees, a PhD student and contract researcher, provides an illustration of the ways in which she used what she learnt at an event in a subsequent publication.

"I attended the course on Transana at the University of Surrey. I'm interested in visual methods and I'd heard about Transana and someone told me that Transana might be the way forward for the analysis of photos and videos and that it was quite a sophisticated programme. So I wanted to follow that up and find out more about the programme. It was for a particular project that we were carrying out in which we had adopted very much a visual approach. When I asked around the Department about Transana, there didn't seem to be an awful lot known about it so we felt it would be worth me going on some training so I could get to know the programme a bit better and I saw the course advertised on the NCRM website and thought I would follow it up.

The 2 day course itself was very useful. It was also lovely meeting with others doing similar methods and most of them were already working on projects using visual methods so that was really helpful. What I would say also that has been immensely helpful was the support I've had from the person running the course. I met him on the course and he said if you have any problems email me directly and being able to do so has been immensely helpful. I encountered a problem and I was able to contact him directly and he did a synchronous conversation using instant messenger so I was able to sort out the problem which I couldn't do via email. For me that contact, to see the person who was doing the training, and then be able to follow up the contact later was really helpful.

I used Transana in preparation for the methodological paper we wrote comparing three different visual methods that we used in the project and the paper got published in the International Journal of Inclusive Education. So Transana allowed the analysis which was discussed in the paper. We could have analysed the data using other programmes but I think it would have been much more time consuming without a tool like Transana. I am going to be using Transana some more towards my PhD so I will be going back to the data and doing more analysis, so I will be using it again".

Case 4, part-time PhD student and contract researcher

#### Using what was learned at NCRM events in research proposals.

Table 15 provides a breakdown of respondents based on whether they report using what they learned from NCRM training events in research proposals and whether these proposals were subsequently funded or submitted to a funding body.

Table 15: Use of learning	from NCRM events in research	proposals by career stage
		proposals by career stage

Career Stage	Used in research proposal	Proposal was funded or submitted
Postgraduate Student	15 (4.7%)	7 (2.2%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	31 (11.9%)	16 (6.1%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	17 (13.8%)	13 (10.6%)
Professor / Reader / Head of Unit / Director	11 (21.6%)	11 (21.6%)
Other	1 (1.4%)	0 (0.0%)
Total	75 (9.1%)	47 (6.3%)

Only a very small proportion of postgraduate students and junior researchers who attended events and responded to these questions indicated that they used what they learned at NCRM events in research proposals. This contrasts with the professors, readers, heads of units and directors who report using what they learned at NCRM events in their funding applications and indicated that these were funded or submitted for funding.

These findings are consistent with what we would expect, taking account of career stages and the work normally associated with these. It is less likely that junior researchers will be involved in preparing and submitting funding proposals as this tends to be the work of more senior researchers and this is what appears to be reflected in this data. It is gratifying to find evidence though, that suggests senior researchers do seem to find NCRM events useful in this regard.

A further case study illustrates how a course was used by an experienced researcher in a project and a subsequent research proposal.

"I went to the introduction to Stata course at the Institute of Education about three weeks ago and I'm in the process of using it now and will be submitting a publication later this month and a research grant application in about a month's time.

I went on it because I had a specific need. The project I need to use STATA for is looking at voting statistics in the UN General Assembly and data on the votes of nations is now available in electronic form. It's an enormous database consisting of all the countries in the World and all the votes taken so I needed some sort of programme that would allow me to process it. I had done some work on it before using Excel but it is very slow to get it to do the things I wanted it to do and as the dataset is in Stata readable form I felt that pursing that would be a useful thing to do. While we have Stata at our institution there was no one there, other than academics, who could teach me to use it so the opportunity to go on the course was particularly welcomed. My particular interest in the dataset is to identify voting patterns across certain states and how they vote in the General Assembly. As it happens the ESRC have just launched a call for research on rising powers so part of the evidence I want to cite as part of the grant application will be based on my current work on votes in the general assembly and from that I will identify, for the application, what further work is needed on the dataset. As part of the application I am intending to include bids for three or four PhD students and they would also need to become familiar with Stata".

Case 6, Reader, University

## **Overall usefulness of NCRM events**

Table 16 reports respondent's opinions of the overall usefulness of the event in their research and/or teaching. Overall more than 70% of those who responded described the event as either 'very useful' (35.7%) or 'quite useful' (36.7%) in their research and/or teaching. A mere 3.3% described it as 'not at all useful'.

	Count	Percentage
Very useful	290	35.7%
Quite useful	298	36.7%
Somewhat useful	198	24.4%
Not at all useful	27	3.3%
Not asked	177	
Total	990	100.00%

#### Table 16: Overall usefulness of NCRM events

From Table 17 below, we can see that the proportions seen at the various career stages are broadly similar to those seen overall. Senior Researchers were most effusive with 46.7% describing NCRM events as 'very useful' in their research and/or teaching and only one describing them as 'not at all useful'. Junior Researchers by contrast tended to favour 'quite useful' over 'very useful' as a descriptor and when compared to the other career stages a greater proportion of them (27.7%) described what they had learned as 'somewhat useful'.

The most senior researchers (professors, readers / heads of units and directors) were also especially positive compared to the sample overall, with 80% describing the events as either 'very useful' (36.0%) or 'quite useful' (44.0%) in their research and/or teaching and just one describing them as 'not at all useful'.

Career Stage	Very useful	Quite useful	Somewhat useful	Not at all useful
Postgraduate Student	124 (39.6%)	101 (32.3%)	78 (24.9%)	10 (3.2%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	70 (27.3%)	106 (41.4%)	71 (27.7%)	9 (3.5%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	57 (46.7%)	43 (35.2%)	21 (17.2%)	1 (0.8%)
Professor / Reader / Head of Unit / Director	18 (36.0%)	22 (44.0%)	9 (18.0%)	1 (2.0%)
Other	21 (30.4%)	25 (36.2%)	17 (24.6%)	6 (8.7%)

### Table 17: Overall usefulness of NCRM events by career stage

# 4. Results – Part 2

# The survey of registered users of the LEMMA online course

## **Response and breakoff rates**

Contact data was obtained for 883 UK registered users of LEMMA's 'Multilevel Modelling online course', specifically those who had logged in over the period April 2009 to March 2011. Forty of the 883 email invitations sent out were returned as undeliverable. Assuming the remaining 843 were delivered the 243 responses received represents a minimum response rate of 28%<sup>5</sup>. Only 2% of the responses received were incomplete. Four respondents chose to formally opt out of the survey using a specially provided link on the 'Online Consent Form' (see Appendix 2).

# Confirmation of registration and time spent on the LEMMA online course

The questionnaire begins by asking respondents to confirm that they are registered users of the LEMMA online course and that they have spent time using it. As Table 18 shows, the large majority (78.7%) confirmed they are registered users and had spent time on the course while just under one fifth (19.6%) had registered but hadn't spent any time on the course. One respondent indicated they were not a registered user and a further two chose 'Other' and explained they had registered in order to evaluate the course.

	Count	Percentage
Registered users who spent time on the course.	181	78.7%
Registered users who have <u>not</u> spent time on the course.	45	19.6%
Not a registered user <sup>6</sup> .	1	0.4%
Other	2	0.9%
No answer	1	0.4%
Not asked	13	
Total	243	100.0%

#### Table 18: Confirmation of time spent by users on the LEMMA online course

Respondents were asked how likely it was that they would use the LEMMA online course in future and most said they would, with only 5.6% indicating this was 'unlikely'. Interestingly, of those who had not spent time on the course more than 90% said it was either 'extremely likely' (31.1%) or 'likely' (60.0%) that they would do so in future. While this may not accurately predict future use it does suggest that their

<sup>&</sup>lt;sup>5</sup> In the previous 2007-2009 survey the response rate from the users of the LEMMA online course was 21%, with 57 responses received. The previous survey was not as extensively modified as the one used here and the may partially.

<sup>&</sup>lt;sup>6</sup> Although the user may not remember registering he/she was in fact registered as a user.

non-use to date does not stem from a negative view of the LEMMA online course. Respondents estimates of the time they had spent on the online course averaged around 15 hours (X = 14.5, S.D. = 18.2).

## **Sample Characteristics**

Of those who responded to the online questionnaire, just over half were female (54.8%) and just under half (45.3%) were male. 47.5% were in the 26-35 yr old age band (see Table 19).

	Count	Percentage
18 to 25	9	5.1%
26 to 35	84	47.5%
36 to 45	49	27.7%
46 to 55	24	13.6%
56 to 65	11	6.2%
66+	0	0.0%
No answer	2	
Not asked	64	
Total	243	100.00%

Table 19: Age profile of LEMMA online course users

Table 20 shows which sector respondents were employed in or studied in when they registered for the LEMMA online course.

 Table 20: Sectors of employment or study of LEMMA online course users

	Count	Percentage
University or College	164	91.1%
Research Institute	3	1.7%
Government	8	4.4%
Private Sector	2	1.1%
Voluntary Sector	0	0.0%
Freelance	0	0.0%
Other	3	1.7%
No answer	0	0.0%
Not asked	63	
Total	243	100.0%

By far the largest category is academic employment in a University or College (91.1%). This high proportion working within academia may be explained in part by the fact that the MLwiN software used in association with the online course is free for UK academics and this is likely to have encouraged a large number of academics to register for the online course. Respondents' career stage at the time of registration is shown in Table 21. Postgraduate students and junior researchers make up 80% of respondents, while the representation from senior researchers who responded is quite small at only 10%.

	Count	Percentage
Postgraduate Student	80	44.4%
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	64	35.6%
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	18	10.0%
Professor / Reader / Head of Unit / Director	7	3.9%
Other	11	6.1%
No answer	0	0.0%
Not asked	63	
Total	243	100.0%

#### Table 21: Career stage profile of LEMMA online course users

The main fields of study of respondents are shown in Table 22 below. Social science predominates, but medical sciences also have notable representation, with more than one quarter of the respondents.

#### Table 22: Main fields of study of LEMMA online course users

	Count	Percentage
Social Sciences	106	59.9%
Medical Sciences	46	26.0%
Arts and Humanities	8	4.5%
Engineering and Physical Sciences (includes Astronomy and Particle Physics)	3	1.7%
Biological Sciences	1	0.6%
Environmental Science	1	0.6%
Other	12	6.8%
Not asked	66	
Total	66	

It can be seen from Table 23 below that within social science psychology is the best represented discipline (28.3%) followed by Statistics, Methods and Computing (15.1%) and Education (13.2%).

	Count	Percentage
Psychology	30	28.3%
Statistics, Methods and Computing	16	15.1%
Education	14	13.2%
Political Science and International Studies	8	7.6%
Human Geography	7	6.6%
Economics	7	6.6%
Social Policy	4	3.8%
Management and Business Studies	4	3.8%
Sociology	3	2.8%
Demography	2	1.9%
Area Studies	2	1.9%
Socio-Legal Studies	1	0.9%
Linguistics	1	0.9%
Other <sup>7</sup>	42	7.5%
Total	106	100.0%

Table 23: Social Science disciplines of LEMMA online course users

<sup>&</sup>lt;sup>7</sup> This figure does not include the disciplines of Social Work, Social Anthropology, Science and Technology Studies, Environmental Planning, Economic and Social History. These disciples each had no registered users of the online course responding to the survey.

The UK regional profile of respondents is shown in Table 24. Assuming the LEMMA online course is equally accessible across the whole country we would expect these figures to broadly reflect the size of populations within these regions, which they do. London has the largest number of registered users as we might expect, but the South West also features strongly, probably due to LEMMA's base in Bristol attracting a large amount of interest from researchers in the region.

	Count	Percentage
Greater London	37	20.7%
South West	27	15.1%
South East	26	14.5%
North West	20	11.2%
Scotland	18	10.1%
West Midlands	11	6.1%
Yorkshire and the Humber	12	6.7%
East of England	7	3.9%
North East	6	3.4%
Wales	5	2.8%
East Midlands	4	2.2%
Northern Ireland	4	2.2%
Other	2	1.1%
Not asked	64	
Total	243	100.00%

 Table 24: Regional profile of LEMMA online course users

## Completion of modules within the LEMMA online course

At the time the online survey was conducted in June 2011 the 'Multilevel Modelling online course' contained eight modules. Respondents were asked whether they had partially or fully completed these modules, or whether they had not started them at all.

Table 25 shows completion rates for the 'Multilevel Modelling online course'. Module 5, the Introduction to multilevel modelling module had the highest completion rate, with over half of respondents indicating they had fully completed it, and almost 30% indicating they had partially completed it. Not surprisingly, the first five modules have noticeably higher completion rates than the last three, which have been more recent additions to the LEMMA online course<sup>8</sup>.

Module Title	Fully	Partially	Not at all
1. Using quantitative data in research	37.0%	26.0%	37.0%
2. Introduction to quantitative data analysis	39.2%	25.4%	35.4%
3. Multiple regression	38.1%	28.7%	33.1%
4. Multilevel structures and classifications	47.0%	28.2%	24.9%
5. Introduction to multilevel modelling	51.9%	28.7%	19.3%
6. Regression models for binary responses	24.9%	26.5%	48.6%
7. Multilevel models for binary responses	28.7%	25.4%	45.9%
8. Multilevel modelling in practice	18.2%	22.7%	59.1%

#### Table 25: Completion rates for the LEMMA online course modules

## Reasons for registering on the LEMMA online course

Table 26 reports respondents' reasons for registering on the LEMMA 'Multilevel Modelling' Online Course.

Overall the most common response was 'to learn methods necessary to conduct a specific research task' (76.8%). Just under half of the respondents indicated they wanted to 'find out about a particular research method and how I might use it in future research' (47.0%). Over a third of respondents said they wanted to 'assess the feasibility of using a particular method for a specific research task' (36.5%).

Teaching was commonly mentioned by those who chose to offer 'Other' reasons for registering for the LEMMA online course. Some said they wished to evaluate the course before directing their students to it, others were teaching the topic and were interested in seeing how the content was delivered, while others wanted to learn about multilevel modelling with a view to teaching it in future. Some respondents also indicated a desire to learn about multilevel modelling without necessarily having an immediate application in mind.

<sup>&</sup>lt;sup>8</sup> The LEMMA online course went live in stages. It began in April 2008 with Modules 1-5. Modules 6 and 7 followed in June 2009, and Module 8 in February 2011.

Reasons for attending	Count	Percentage
To learn methods necessary to conduct a specific research task	139	76.8%
To find out about a particular research method and how I might use it in future research	85	47.0%
To assess the feasibility of using a particular method for a specific research task	66	36.5%
To gain methodological resources such as reading lists, other documents and links that I use or plan to use	50	27.6%
To learn about developments in a particular area of research methods	43	23.8%
Other reason(s)	14	7.7%

#### Table 26: Reasons for registering on the LEMMA online course

(Denominator = 181, the number who registered for and used the LEMMA online course)

## Benefits from the LEMMA online course

Table 27 shows respondents' views on whether they feel they had benefited from the online course. The vast majority felt they had benefited, with only four respondents indicating that they had not.

#### Table 27: Do users feel they benefit from the LEMMA online course?

	Have you benefited?		
Career Stage	Yes	No	
Postgraduate Student	78 (97.5%)	2 (2.5%)	
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	63 (98.4%)	1 (1.6%)	
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	17 (94.4%)	1 (5.6%)	
Professor / Reader / Head of Unit / Director	7 (100.0%)	0 (0.0%)	
Other	11 (100.0%)	0 (0.0%)	

Those respondents who indicated they had benefited were asked to what extent they had benefited in a number of specific ways. Table 28 below shows the results.

'Increased knowledge about research methods' was the most often reported benefit, followed by 'providing an opportunity for clarification and reflection'.

Ways of benefiting from NCRM events	Greatly	Significantly	Moderately	Slightly	Not at all	Not appropriate
Increased knowledge about research methods	24%	46%	20%	6%	0%	3%
Provided an opportunity for clarification and reflection	19%	46%	23%	6%	1%	4%
Increased ability to do research	18%	40%	28%	10%	2%	2%
Provided useful references and other resources	15%	27%	30%	14%	6%	8%
Served as an input to teaching and supervision responsibilities	6%	13%	15%	9%	24%	34%
Enabled engagement with course tutors / event leaders	3%	7%	12%	9%	31%	39%
Provided networking opportunities with other attendees	1%	3%	9%	9%	44%	34%

#### Table 28: Extent of benefit from the LEMMA online course

(Number of cases = 777, not asked = 213)

Fifteen respondents chose to add 'Other' ways in which they benefited from the online course. These were mostly endorsements of the course and its quality and are clearly indicative of the satisfaction many felt having used the online course to master what is clearly a difficult topic. The following quote is typical.

I analysed my data and wrote part of my thesis chapters with the aid of the LEMMA online course. Although I had already participated in the 'real' course previously, the online content was much better for me in elaborating problems and the usage of the software MLWIN. I'm grateful to the developers for this source. At the moment, I am exploring the use of other techniques, but because no online courses accompany them, I am experiencing more difficulties. This is just to highlight again how valuable a well-written and accessible course like the LEMMA is.

Four respondents said they had not benefited from the online course, but none of these chose any of the suggested reasons provided (see Question 8 Appendix 2) and instead choose 'Other'. One indicated that, they had not finished the course (and presumably had not applied it), while another concluded that multi-level modelling was not the right form of analysis for their research. A third indicated they had not had enough time to engage with the course yet and had not gone beyond what they already knew, while the fourth had experienced problems accessing the online course.

## Making use of what was learned from the LEMMA online course

When asked whether they had used the methods covered by the LEMMA online course 148 respondents (84.6%) said they had.

Table 29 below shows a breakdown of respondents' career stages and whether they report making use of what they learned from the LEMMA online course. The

proportions at each career stage are similar, with the small number of professors, readers, heads of units and directors all reporting usage.

Career Stage	Made use of the LEMMA online course
Postgraduate Student	64 (83.1%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	55 (87.3%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	13 (76.5%)
Professor / Reader / Head of Unit / Director	7 (100.0%)
Other	9 (81.8%)

#### Table 29: Whether use was made of the LEMMA online course

Table 30 below shows a breakdown of the particular uses made of what respondents learned from the LEMMA online course. Most who responded (91.2%) used what they learned in a research project, while 13.5% used it in a research proposal.

#### Table 30: Uses made of learning from the LEMMA online course

	Count	Percentage
In a research project	135	91.2%
In a research proposal	20	13.5%
In teaching	20	13.5%
In the supervision of students	16	10.8%
Other	7	4.7%

(Denominator = 148)

#### Using what was learned from the LEMMA online course in research projects.

Table 31 provides a breakdown of respondents based on whether they used what they had learned from the LEMMA online course in research projects and whether the research was subsequently published or submitted for publication.

Fifty eight postgraduate respondents indicated that they had used what they learned on the online course in research projects, while six said this work had subsequently been published or submitted for publication.

Junior researchers reported greater publication activity than the postgraduate students, with fifty one reporting use on a project and twenty three reporting submission or publication. The numbers for more senior researchers are small but the reported levels of submission or publication are higher in percentage terms. This pattern is consistent with that seen in the main survey.

Table 31: Use of the LEMMA online course in research projects by ca	areer stage
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Career Stage	Used in research project	Published or submitted
Postgraduate Student	58 (75.3%)	6 (7.8%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	51 (81.0%)	23 (36.5%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	11 (64.7%)	6 (35.3%)
Professor / Reader / Head of Unit / Director	6 (85.7%)	3 (42.9%)
Other	9 (81.8%)	0 (0.0%)
Total	135 (77.1%)	38 (21.7%)

#### Using what was learned from the LEMMA online course in research proposals.

Table 32 provides a breakdown of respondents based on whether they report using what they had learned from the LEMMA online course in research proposals and whether these proposals were subsequently funded or submitted to a funding body.

#### Table 32: Use of the LEMMA online course in research proposals by career stage

Career Stage	Used in research proposal	Proposal was funded or submitted
Postgraduate Student	11 (14.3%)	5 (6.5%)
Junior Researcher (e.g. Research Officer, Research Fellow, Lecturer)	5 (7.9%)	5 (7.9%)
Senior Researcher (e.g. Senior Research Officer, Senior Lecturer)	3 (17.6%)	3 (17.6%)
Professor / Reader / Head of Unit / Director	0 (0.0%)	0 (0.0%)
Other	1 (9.1%)	0 (0.0%)
Total	20 (11.4%)	13 (7.4%)

Only a small number of researchers who responded to these questions indicated that they used what they learned from the online course in research proposals. It is difficult therefore to draw conclusions from such small numbers.

## Overall usefulness of the LEMMA online course

Overall more than 90% of those who responded described the online course as either 'very useful' or 'quite useful' in their research and/or teaching.

Respondents at every career stage favoured the term 'very useful' over all others and more than half described the online course as 'very useful' (57.0%), with over one third describing it as 'quite useful' (34.1%). Nobody described it as 'not at all useful'.

Satisfaction with the online course appears to increase with seniority. Although the numbers involved are small more than 70% of professors, readers, heads of units and directors described the online course as 'very useful'.

# 5. Discussion

# Attendance at events and time spent online

It is interesting to note that around 10% of respondents report registering for, but not attending face-to-face events. Some may have deliberately chosen the 'didn't attend' option in order to avoid completing the survey, but there were other ways of doing this (either by formally opting out of the survey or simply closing the browser). If we assume the figure does reflect actual non attendance the reasons for this are not clear. These data do suggest however that it may be worth following up on non-attendance in future, in order to gain a fuller understanding of the issues involved. NCRM does not currently ask event organisers to take attendance registers but this is being introduced from 2011-12 onward.

Registration followed by subsequent non use of the online course is also evident, with close to 20% of respondents indicating they did not spend any time on it after registering. While this percentage is higher than for face to face training it has little effect financially, in contrast to non-attendance at face to face events where each non-attendee incurs the same cost to NCRM as each attendee.

Further research is needed to establish the reasons for non-attendance at face to face events and for non use of online training. The low cost of NCRM events may be a factor as it represents a financial loss that may be insufficient to deter non attendance, especially if it is not a personal loss but a loss to one's institution. This issue of non attendance is one of the factors to consider when setting fee rates in future.

A lack of time was identified as a major barrier to training in successive NCRM needs surveys (Wiles et al., 2005; Wiles et al., 2008; Moley & Wiles, 2011) and this may explain a lot of non-attendance at NCRM's training, and also non-use of the LEMMA online course. Increased monitoring of these issues will help quantify the problem, while future research by NCRM will look at the reasons for non attendance and will hopefully point to possible measures to improve attendance and use of online courses.

It should also be remembered that unlike face-to-face training which requires the learner to attend for one or more days of training, the LEMMA online course asks the user for a much longer term commitment, requiring them to find within busy research schedules portions of time that amount in total to many hours of training. Users expressed extreme satisfaction with the course, including those who had partially completed the course and the modules within it. The modular design of the course allows users to 'dip into' the course and complete only those modules they need. The partial completion of modules is not unusual, since more advanced topics are covered at the end, so learners can stop once they have learned what they need to know.

While users may be getting all they need from partially completed modules there is in theory an opportunity to further increase the impact of the LEMMA online course by putting in place additional measures designed to support those users who fail to complete individual modules for other reasons. Further research would be needed to establish what these other reasons might be and also what impact better completion rates would have.

# Sample Characteristics

The gender and age profiles reported here are consistent with previous work and NCRM's event attendees are in the main working or studying in academic institutions although the large proportion reported here for face to face events (82.4%) is a little less than is reported in the previous NCRM impact assessment covering the period 2007-09 (Bardsley, 2010). Compared to that study the proportion of event attendees from government, and the private sector are up (6.4% vs. 5.0%, and 2.3% vs. 0.7% respectively).

The large proportion of postgraduate and junior researchers in both the main survey sample and the sample from the survey of online learners reflects the continued role of postgraduate and junior researchers as the main consumers of NCRM's research methods training. However, NCRM's focus on advanced and innovative training, along with measures to meet needs from all career stages has resulted in reasonably large numbers of more senior and also more experienced researchers availing of NCRM training provision.

When one looks at the discipline profile shown in Table 6 (page 14) the high proportion of social scientists using NCRM training is as one would expect, while the relatively high proportion of medical scientists may in part be due to the medical background of NCRM's BIAS II node. However, bearing in mind the social science disciplines from which NCRM's nodes are drawn, it is encouraging to see a much wider range of disciplines represented at NCRM events, evidence that NCRM events have an appeal well beyond the disciplines of NCRM's constituent nodes.

For the LEMMA online course the proportion of female learners is up on the figure given in the previous report, and while the proportion of males is still higher than has been the case for face-to-face training (both here and in the 2007-09 report) female researchers are now the majority of respondents in both the face-to-face and online learning surveys. Those using the LEMMA online course tend to be even more focused on junior researchers and on a wider subset of social science disciplines that are less focused on sociology than is the case for NCRM training as a whole (see Table 22 p.30 and Table 23 p.31).

# Reasons for attending events or registering for online training

Participant responses to the reasons for attending NCRM events underscore the need for providers to meet the needs of an increasingly wide variety of potential consumers of research methods training. Learning about developments in research methods and how research methods might be used in future are fairly obvious reasons but obtaining methodological resources or links to such resources is perhaps less obvious, although this reason was chosen by many in our sample. Providers should bear this in mind when preparing resources to support face to face training.

While the number of respondents involved was small it is interesting to note the value placed on training as a good opportunity for networking. Providers need not therefore be reluctant to devote time to networking within their training events, with adequate breaks for lunch for example.

The distinction drawn by some between methods and skills and between methods and tool use is worth some further consideration. The distinction stems in large part from the way many researchers view training in the use of computer software tools such as SPSS and STATA. This is often not seen as methods training per se, but training in cross cutting skills that are applicable to a broad range of methods. When we speak of training in research methods therefore it may be wise to also consider what cross-cutting skills are needed to use these methods and what the best contexts are in which to teach those skills.

The optimum context may not in fact be the one in which we ultimately intend to use the method, but may perhaps be a context where the concepts learners need to grasp are more easily illustrated and understood, a more general context perhaps. This in turn raises the question of whether such cross-cutting skills might best be taught in collaboration with researchers from other disciplines within social science and from within other fields of study, such as medicine or life sciences. Such collaboration might help specialists in research methods ground those methods in contexts where the appropriateness of the methods is clearest.

With some respondents indicating that they attended NCRM events as a way of gaining inspiration from respected academics delivering the training it serves as a reminder not to forget the affective domain when planning instruction. The value of inspiration, especially for postgraduate students, cannot be underestimated and it has its own part to play in achieving excellence in research training.

Reasons why users of the LEMMA online course chose to register appear to focus more on specific utility. The main reasons given were to learn or assess the feasibility of a method for a specific task and to find out about a method for future use. Only 18% indicated that they benefited from it through learning more about developments in the area. This focus on utility may reflect the particular focus of the course.

# The benefits gained from events and online training

A total of 95% of respondents who attended events reported gaining a benefit from training. This overwhelming proportion is somewhat higher than the 91% reported in Bardsley (2010). It is interesting to note also that the '...opportunity for clarification and reflection' is the most commonly reported benefit, more commonly reported than the more immediately obvious '...increased knowledge about research methods' (which was the most commonly reported benefit among users of the LEMMA online course). 'Opportunities for clarification and reflection' might not immediately come to mind when one thinks of 'short courses', the type of training most often used by NCRM providers and one perhaps more often seen as synonymous with intensive information-packed sessions. Once again though, this finding serves as a reminder to providers as to the constituents of good training. We reported earlier that the opportunity to network is important and perhaps in the same vein the opportunity for clarification is also important.

More than half of respondents to the main survey suggested they benefited greatly or significantly through the provision of useful references and resources at NCRM training events. This underscores the importance of the preparations tutors make prior to holding a training event, gathering together well thought-out collections of background material and compiling an appropriate reading list. These resources are clearly appreciated by those who attended our events.

It is a little disconcerting to see that in the main survey less than 40% of respondents felt that attending NCRM events greatly or significantly increased their ability to do research, although the figure is higher for users of the LEMMA online course (58%). Improving learners' ability to do research might in future require a greater focus on the procedural knowledge that underpins research practice, i.e., the 'How to...' of research as well as the 'What'.

What is also clear though and what has a bearing on this issue is that those who attend our events see benefits other than what is directly applicable to their research

work and this should be borne in mind when considering the impact of NCRM's training.

Over half of respondents to both surveys indicated that what they learned had not served as an input to teaching and/or supervision responsibilities. This suggests that the work of 'training the trainers' is an area where NCRM could do more in future, perhaps designing more events specifically to meet this need.

# How respondents made use of what was learnt

When asked whether they had used the methods covered by an NCRM event more than half the attendees responding to the questionnaire reported they had. This figure is still quite low compared to the same figure for those using the LEMMA online course (85%). The difference may be due to the online course content being more directly applicable to research, focusing as it does on the analysis of data. Those who register for the online course are perhaps more likely to be immersed at the time in an ongoing project and may be ready to begin analysis. Those who attend face to face events on the other hand may do so under very varied circumstances. Some may be in the middle of ongoing projects but others may be just considering ideas, some of which might never come to fruition. It is important therefore that we recognise the need to support researchers in all stages of a research project, not just those in the cut and thrust of an ongoing project.

Among those who said they used the methods they learned, research was by far the most common use – over eighty percent for the main survey and over ninety percent for those using the LEMMA online course. Bid writing was less often cited as the ultimate use.

There is no doubt that research projects throw up training needs that can then be met through appropriate training but it may be worthwhile in future to consider how training might be designed so as to emphasise the opportunities for future research. Training could be timed to coincide with funding announcements and could devote some time to looking at how the methods might address issues or topics in the funding announcement.

The reported finding that the most senior researchers appear to be making most use of the methods covered in NCRM events is interesting. It seems likely that this reflects career stages and the work associated with these stages. The most senior researchers' desire for training may reflect a desire to develop skills in new methods that can extend a well established line of research, while junior researchers may feel a more immediate need to develop skills that will serve them well at the beginning of their careers.

It is the situation of researchers in mid career that is perhaps most worrisome and one that needs further research to unravel the reasons for their relatively low uptake and use of NCRM training. It may be the case that mid career researchers are still focusing on the methods they developed through their postgraduate and postdoctoral work and may be less inclined to look for new methods to pursue at that point in their development, but it may also be the case that the relative lack of uptake and use reflects a lack of time to engage in research, due to heavy teaching loads.

# 6. Conclusion

The biennial survey aims to evaluate the impact of NCRM's training and capacitybuilding events by exploring uptake of NCRM training and attendees' perceptions of benefit. Response rates have increased in successive surveys and these consistently reflect the positive impact of NCRM capacity building, not only in terms of bids for funding, research activity and publications but also as a source of inspiration to researchers, a facilitator of reflection, and a means to empower researchers and build their confidence.

NCRM's Strategic Framework for Capacity Building (Moley & Seale, 2009) stresses the desirability of varied teaching and learning experiences to meet a variety of needs. The findings reported here support such varied provision, with many researchers asking for experiences that not only instruct, but also inspire and which also allow opportunities for networking and for the development of skill sets that are method independent.

The provision of NCRM training has steadily increased since 2005 and the profile of those attending has varied over time, with a steady increase in the number of non-academic researchers availing of the training and a widening of the researcher base to include greater representation from a broader range of social science disciplines, beyond those from which NCRM's nodes are drawn.

With 95% of respondents who attended NCRM reporting a benefit from training it is clear that NCRM has developed a successful format for training. The finding that clarification and reflection was the most frequently reported benefit underscores the fact that these benefits are not seen merely in terms of a narrowly focused set of skills and knowledge but also in terms of a broader more holistic development.

It is clear that NCRM training has yielded research-related benefits, in terms of funding bids, research work and publications. The patterns of benefit reported here are likely to reflect job roles and responsibilities, with junior researchers engaging in more project work than publication and funding bids, but the number of senior researchers reporting benefits in terms of funding bids and publications is encouraging. Even so, there is still much scope to increase the impact of NCRM's events and training in terms of funding bids and publications and we will seek to address these challenges during Phase 3 of the project.

Other challenges include devising new ways to ensure researchers can apply the knowledge and skills they acquire, in order to make them better researchers, as well as providing more support for those who train the researchers of the future. Responding effectively to the latest developments in methods is also an ongoing challenge, as is ensuring that training meets the needs of a developing research agenda,

There is also some potential to increase the impact of NCRM's capacity building by looking at the reasons for non-attendance among those who register, as well as reasons why some who attend do not make use of the training subsequently. NCRM will monitor attendance in future and will seek to address any barriers that might be preventing some who registered from attending. We will also examine what additional post-training support might help researchers make the most of the training they receive and will look at what follow-up activities might help in this regard.

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