

University of Dundee

1. Introductory seminar: 24th February 2010

1.1 Notes from discussion

How was AQMeN fitting with DTCs? AQMeN's aims overlapped to some extent, liked AQMeN approach more. Felt Edinburgh and Glasgow carving up DTCs between them.

Very ambitious to achieve what we are suggesting.

Could teaching modules and online courses be set up with choice of datasets? Courses taught separately as participants find it hard to identify when applications are from another area. Likewise possible choice of software. Important to understand what elements of course are generic and what are specialised (eg examples, software) when designing training to suit all.

One person thought courses should be centred around a Scottish dataset and how best to analyse it using available techniques, however another thought for advanced methods should be centred on method.

Sometimes Scottish datasets were not as good as Scottish components of UK data.

Meta data important for datasets.

Health informatics have courses available in some advanced methods, eg missing data imputation, prognostic modelling.

Would like to link with health informatics and do research combining health and census based data. Workshop of interest to both might be good AQMeN event in Dundee.

Good to have central point of knowledge on Scottish datasets and Scottish components of UK datasets.

1.2 Attendees

Dick Brown	Accountancy and finance
Paul Allanson	Economics
David McCallum	Geography
Keith Topping	Education
Victoria Bourne	Psychology
Calum McCowan	Health informatics

Convened by Alistair Geddes

2. Survey Results

Discipline

	N	%
Geography, Geosciences, Environmental Studies	1	11.1
Other	2	22.2
Psychology	5	55.6
Social Science, Humanities	1	11.1
Total responding	9	100.0

General level of expertise in quantitative methods

	N	%
3.Beginner level in at least one descriptive method	1	11
4.Intermediate level in at least one descriptive method	2	22
5.Intermediate level in at least one advanced method (beyond linear regression)	4	44
6.Advanced level in at least one advanced method (beyond linear regression)	2	22

How would you describe yourself?

	N	%
	3	33.3
Professional statistician	1	11.1
Regular user of quantitative methods	4	44.4
Occasional user of quantitative methods	1	11.1
Total responding	9	100.0

Note: This question was added later and only some respondents have answered

Expertise: Descriptive quantitative analysis

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Frequencies, cross-tabulation, means etc	44	33	22	.	.
Comparing frequencies or means	56	22	22	.	.
Graphical output (eg bar-charts, histograms, pie-charts etc)	56	33	11	.	.
Transforming data distributions (eg log, quadratic)	22	22	22	33	.
Indices of inequality (eg GINI index)	22	.	22	44	11
Measures of association (eg correlation)	33	44	11	.	11

Expertise: Regression analysis

	Percentage respondents with each level of expertise			
	Advanced	Intermediate	Beginner	Non user
Simple/multiple linear	56	11	33	.
Log-linear	22	11	56	11
Logistic/ordinal/multinomial	11	33	44	11
Other (eg poisson, negative binomial)	.	22	22	56

Expertise: Longitudinal analysis

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Event history analysis	.	11	11	78	.
Times series analysis	11	33	11	44	.
Trajectory modelling	.	.	22	78	.
Other longitudinal analysis	11	11	11	56	11

Expertise: Grouping analysis

	Percentage respondents with each level of expertise			
	Advanced	Intermediate	Beginner	Non user
Principal components/factor analysis	.	44	33	22
Cluster/classification analysis	.	33	22	44
Latent class analysis	11	.	33	56
Multi-dimensional scaling	.	.	44	56

Expertise: Other complex analysis methods

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Probability, set theory, matrix algebra	11	11	22	56	.
Multi-level modelling	.	11	22	67	.
Structural equation modelling	22	.	11	56	11
Spatial analysis/modelling	.	11	22	67	.
Geographically weighted regression	.	11	11	78	.
Econometric techniques	22	.	11	67	.
Simulation and risk analysis	11	11	11	67	.
Missing value analysis/imputation	.	11	33	56	.
Content analysis (eg NVivo)	.	.	11	89	.

Expertise: Software packages

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
SPSS	33	44	22	.	.
Stata	22	.	.	44	33
SAS	.	.	.	67	33
R/S/SPlus	.	.	11	56	33
Minitab	.	22	.	44	33
GAUSS	.	.	.	67	33
Amos	.	11	.	56	33
Lisrel	.	.	.	67	33
MPlus	.	.	.	67	33
LatentGold	.	.	.	67	33
MLWin	.	.	.	67	33
ARC/gis	.	.	.	67	33
BUGS (OpenBUGS WinBUGS etc)	.	.	11	56	33

Expertise: Which of the following datasets to you use, and how often?

	Percentage of respondents			
	Use regularly	Used once or occasionally	Do not use	Not given
Growing Up in Scotland (GUS)	.	.	89	11
Scottish School Leavers Survey	.	.	89	11
Scottish Crime Survey	.	.	89	11
Scottish Social Attitudes Survey	.	.	89	11
Scottish Health Survey	.	22	67	11
Scottish Household Survey	.	11	78	11
Scottish components of national datasets (eg BHPS)	22	.	67	11
Other Scottish datasets	11	11	67	11
Other UK datasets	.	.	78	22
Other datasets	11	11	67	11

Training requirements: Descriptive quantitative analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)			
		Intermediate	Beginner	Non user	Not given
Frequencies, cross-tabulation, means etc	2	50	50	.	.
Comparing frequencies or means	2	50	50	.	.
Graphical output (eg bar-charts, histograms, pie-charts etc)	1	.	100	.	.
Transforming data distributions (eg log, quadratic)	3	.	67	33	.
Indices of inequality (eg GINI index)	3	.	33	33	33
Measures of association (eg correlation)	1	.	100	.	.

Training requirements: Regression analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
Simple/multiple linear	2	.	100	.
Log-linear	2	.	100	.
Logistic/ordinal/multinomial	2	.	100	.
Other (eg poisson, negative binomial)	3	33	33	33

Training requirements: Longitudinal analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
Event history analysis	3	33	33	33
Times series analysis	3	33	33	33
Trajectory modelling	3	.	67	33
Other longitudinal analysis	2	50	50	.

Training requirements: Grouping analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
Principal components/factor analysis	4	25	50	25
Cluster/classification analysis	2	.	50	50
Latent class analysis	2	.	50	50
Multi-dimensional scaling	3	.	67	33

Training requirements: Other complex analysis methods

	Number requiring training	Percentage of respondents at each level (of those requiring training)			
		Intermediate	Beginner	Non user	Not given
Probability, set theory, matrix algebra	2	.	50	50	.
Multi-level modelling	5	20	40	40	.
Structural equation modelling	3	.	33	33	33
Spatial analysis/modelling	2	50	50	.	.
Geographically weighted regression	2	50	50	.	.
Simulation and risk analysis	1	.	100	.	.
Missing value analysis/imputation	4	25	50	25	.
Content analysis (eg NVivo)	2	.	50	50	.

Training requirements: Software packages

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
SPSS	3	67	33	.
Stata	1	.	.	100
SAS	1	.	.	100
R/S/SPlus	1	.	.	100
Amos	3	33	.	67

Training requirements: List of top three training priorities (all responses in alphabetical order)

Priority
BAYESIAN STATISTICS
LEARNING HOW TO DEAL WITH GROUP-RECALL DATA
LOGISTIC REGRESSION
MULTI-LEVEL MODELLING
PANEL DATA ESTIMATION TECHNIQUES
PATH ANALYSIS
REFRESHER COURSES ON AREAS I SAID I'D LIKE TRAINING IN
SPSS
STRUCTURAL EQUATION MODELLING
STRUCTURAL EQUATION MODELLING
WANTING TO LEARN TECHNIQUES OUTSIDE OF PSYCHOLOGY
WANTING TO MOVE BEYOND REGRESSION AND ANOVA
WORKING OUT WHICH STATISTICS TO USE THAT ARE MOST APPROPRIATE FOR THE RESEARCH CONCERNED

Training requirements: How likely to participate in different types of training

	Very likely	Quite likely	Not likely	Total replies
Taught courses with hands-on training	3	4	2	9
Presentations by experts, but no hands-on training	.	6	3	9
On-line training	2	3	4	9
Training by video link	1	1	6	8
Step by step examples on the website	6	1	2	9

Training requirements: How likely would you be to attend face-to-face training events in ...?

	Very likely	Quite likely	Not likely	Total replies
Aberdeen	3	4	1	8
Dundee	8	.	1	9
Edinburgh	1	3	4	8
Glasgow	.	4	4	8
St Andrews	2	3	3	8
Stirling	1	3	4	8
Elsewhere in Scotland	.	.	5	5

Training requirements: Preferred duration for face to face training

	N	%
1 day	7	88
3 days	1	13
Total responding	8	100

Training requirements: Are there any datasets on which you would like specific training?

	N	%
No	7	88
Yes	1	13
Total responding	8	100

What in your view should be the main priorities for AQMeN?

	Average ranking
Provide support/advice on using quantitative methods	4.6
Provide support/advice on using software packages	4.8
Provide a forum for like-minded people to have dialogue about quantitative methods	6.3
Enable people to make contact with potential collaborators	7.1
Develop modules for teaching quantitative methods at postgraduate level	3.4
Run training or CPD courses on intermediate/advanced level statistics	4.4
Run training or CPD courses on basic level statistics	6.1
Run training or CPD courses on using software packages	5.3
Provide information on other training/CPD opportunities	6.0
Provide information on relevant seminars and/or conferences	6.9

Respondents ranked priorities 1-10 (1 = top priority, 10 = bottom priority)

Which of the following things would you use the AQMeN website to do? Discover and Inform

	Average ranking
Search for information about quantitative methods	3.1
Find resources for teaching quantitative methods	4.2
Use online training resources for statistical software packages	2.8
Discover related organisations and projects in the UK	5.9
Identify upcoming training or other network events via a calendar	4.6
Find contact details of network members	6.0
Find out about activities of network members	5.6
Discover who in the network has expertise on a given subject	4.2

Respondents asked to provide top 5 rankings (1=high, 5=low), unranked items given a low rank of 6

Which of the following things would you use the AQMeN website to do? Participate and Network

	Average ranking
Link to my staff home page & provide a link to AQMeN on my home page	4.8
Write descriptions about my activities & expertise for the website	6.0
Link to my social network sites (Facebook, LinkedIn, Twitter, Wordpress...)	6.0
Write content about topics of interest to myself and the network	5.0
Add links to websites of interest to the network	5.1
Upload teaching materials or datasets directly for use by network	5.1
Start a discussion about a problem or topic on an online forum	1.5
Respond to a thread on an online discussion forum by a member	5.7

Respondents asked to provide top 5 rankings (1=high, 5=low), unranked items given a low rank of 6

Would you be prepared to contribute to AQMeN in any of the following ways?

	Yes	No	Total replies
Organising or hosting a seminar	.	8	8
Presenting a paper at a seminar	3	5	8
Offering support to other network members on methods or software issues (where appropriate)	3	5	8
Be involved in the development of training or CPD activities	2	6	8
Be involved in developing teaching modules on advanced methods	2	6	8