University of St Andrews

1. Introductory seminar: 26 November 2009

1.1 Group Feedback Form

- **In what ways do you think you could benefit from being a member of AQM*e*N?**

- Easy access to high quality affordable training
- Networking
- Training
- Teaching resource
- Training for specific techniques
- Quality approved links on website

- **What type of live events would you be interested in attending?**

e.g. Lectures, Seminars, Workshops…

- Workshops on methods
- Seminars with follow-on workshops (1 day in total)
- Hands- on training
- Lectures

- **Are there any specific courses you would be interested in?**

Particular methods, software, techniques...

- Structural Equation Modelling
- Matlab/Octane/Python
- Causality for Observational Data
- Study survey design
- Regression
- Game Theory
- Operation Research for optimisation & decision making

(Techniques available as well as specific methods)

- STATA
- Interdisciplinary training

- **What features of the website would you use?**

- Stats links
- Step by Step examples
- Forum
- Links
- Events
- HR pool for finding other students & scholars who use same QM
- Profiles

- **What type of online learning would be most useful to you?**

e.g. Video lectures, audio, powerpoint, demo, interactive courses…

- Powerpoint
- Step by Step Examples
- Online learning related to live events (follow on trainng)
- No audio
- Examples that can be run in STATA
- Video
- Interactive courses
- Publish lecture slides

1.2 Notes from Discussion

Frank Popham – Scottish Longitudinl Study & Administrative Data Liaison Service

Interest in DTC application and relation to AQMeN.

Would like refs to studies finding decreasing quant skills in social sciences

Frank Popham thought many other datasets could be exploited more, eg ESRC administrative dataset

Probably not worthwhile attending seminars in Edinburgh or Glasgow

Would like training in data management, DAMES theory (?), OR, decision optimisation, quant methods for decision making

DTC involvement at St A – Laurence Lasselle, Ines Jentzsch, Frank Popham

1.3 Attendees

Sara Tiley	Geography and Geosciences
Jay Lim	International Relations
Stathopoulos Achanasios	International Relations
Daniel …	Psychology
Francesca Ainsworth	Psychology
Christine Stell	Psychology
Katharina Zeiner	Psychology
Laurence Lasselle	Economics
Ines Jentish?	Psychology
Paul Hibbard	Psychology
Michelle Arnold	Psychology
Frank Popham	Geography and Geosciences
Joanne Persson	Psychology
Matt Farr	Psychology
Fergus Neville	Psychology
Martin Campbell	Psychology

Convened by Paul Gardner

2. Survey Results

Discipline

	N	%
Biology and Life Sciences	1	11.1
Geography, Geosciences, Environmental Studies	1	11.1
Politics, Employment Research	1	11.1
Psychology	6	66.7
Total responding	9	100.0

General level of expertise in quantitative methods

	N	%
2.Non-user of all methods	1	11
4.Intermediate level in at least one descriptive method	3	33
5.Intermediate level in at least one advanced method (beyond linear regression)	3	33
6.Advanced level in at least one advanced method (beyond linear regression)	2	22

How would you describe yourself?

	N	%
	3	33.3
Regular user of quantitative methods	5	55.6
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
Frequencies, cross-tabulation, means etc	11	89	.	.
Comparing frequencies or means	22	78	.	.
Graphical output (eg bar-charts, histograms, pie-charts etc)	22	67	11	.
Transforming data distributions (eg log, quadratic)	11	22	56	11
Indices of inequality (eg GINI index)	.	11	22	67
Measures of association (eg correlation)	22	67	.	11

Expertise: Regression analysis

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

Expertise: Longitudinal analysis

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

Expertise: Grouping analysis

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Principal components/factor analysis	11	22	44	11	11
Cluster/classification analysis	.	11	67	11	11
Latent class analysis	.	11	33	44	11
Multi-dimensional scaling	11	.	22	56	11

Expertise: Other complex analysis methods

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Probability, set theory, matrix algebra	.	22	22	56	.
Multi-level modelling	.	22	11	67	.
Structural equation modelling	11	11	22	44	11
Spatial analysis/modelling	.	.	22	78	.
Geographically weighted regression	.	.	22	78	.
Econometric techniques	.	.	22	78	.
Simulation and risk analysis	.	.	33	67	.
Missing value analysis/imputation	11	.	33	56	.
Content analysis (eg NVivo)	.	22	11	67	.

Expertise: Software packages

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
SPSS	33	56	11	.	.
Stata	.	.	.	78	22
SAS	.	.	11	56	33
R/S/SPlus	.	.	11	56	33
Minitab	.	11	11	56	22
GAUSS	.	.	.	67	33
Amos	.	.	11	56	33
Lisrel	.	11	.	56	33
MPlus	.	.	.	67	33
LatentGold	.	.	.	67	33
MLWin	.	.	11	56	33
ARC/gis	.	.	11	67	22
BUGS (OpenBUGS WinBUGS etc)	.	.	.	67	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	.	11	78	11
Scottish Crime Survey	.	11	78	11
Scottish Social Attitudes Survey	.	22	78	.
Scottish Health Survey	11	11	67	11
Scottish Household Survey	.	33	67	.
Scottish components of national datasets (eg BHPS)	.	22	78	.
Other Scottish datasets	.	11	78	11
Other UK datasets	11	33	56	.
Other datasets	22	.	56	22

Training requirements: Descriptive quantitative analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
Frequencies, cross-tabulation, means etc	3	100	.	.
Comparing frequencies or means	3	100	.	.
Graphical output (eg bar-charts, histograms, pie-charts etc)	3	67	33	.
Transforming data distributions (eg log, quadratic)	6	.	83	17
Indices of inequality (eg GINI index)	3	.	67	33
Measures of association (eg correlation)	5	80	.	20

Training requirements: Regression analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
Simple/multiple linear	4	25	50	25
Log-linear	4	.	75	25
Logistic/ordinal/multinomial	4	.	75	25
Other (eg poisson, negative binomial)	3	.	67	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	5	.	20	80
Times series analysis	5	.	20	80
Trajectory modelling	5	.	20	80
Other longitudinal analysis	5	20	20	60

Training requirements: Grouping analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)			
		Intermediate	Beginner	Non user	Not given
Principal components/factor analysis	7	14	57	14	14
Cluster/classification analysis	7	.	71	14	14
Latent class analysis	7	.	43	43	14
Multi-dimensional scaling	6	.	33	50	17

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	3	.	67	33	.
Multi-level modelling	5	20	20	60	.
Structural equation modelling	5	20	20	40	20
Spatial analysis/modelling	4	.	25	75	.
Geographically weighted regression	4	.	25	75	.
Simulation and risk analysis	4	.	50	50	.
Missing value analysis/imputation	5	.	60	40	.
Content analysis (eg NVivo)	4	25	25	50	.

Training requirements: Software packages

	Number requiring training	Percentage of respondents at each level (of those requiring training)		
		Intermediate	Beginner	Non user
SPSS	4	75	25	.
Stata	2	.	.	100
SAS	1	.	.	100
R/S/SPlus	1	.	.	100
Minitab	1	.	.	100
GAUSS	1	.	.	100
Amos	2	.	50	50
Lisrel	1	.	.	100
MPlus	1	.	.	100
LatentGold	1	.	.	100
MLWin	2	.	50	50
ARC/gis	2	.	50	50
BUGS (OpenBUGS WinBUGS etc)	1	.	.	100

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

Priority
ANALYSIS OF FUNCTIONAL MRI DATA
BEGINNERS TO QUANTITATIVE METHODS
DATASET TRAINING
DEALING WITH INTERACTING GROUPS (NONINDEPENDENT DATA)
LONGITUDINAL METHODS
MEDIATION AND MODERATION ANALYSIS
MULTI-LEVEL ANALYSIS
MULTILEVEL MODELLING
REGRESSION ANALYSIS
STATA TRAINING
STRUCTURAL EQUATION MODELLING
STRUCTURAL EQUATION MODELLING

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	4	4	1	9
Presentations by experts, but no hands-on training	1	5	3	9
On-line training	4	4	1	9
Training by video link	1	2	6	9
Step by step examples on the website	7	1	1	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	1	1	7	9
Dundee	5	4	.	9
Edinburgh	2	4	3	9
Glasgow	1	3	5	9
St Andrews	8	1	.	9
Stirling	1	1	7	9
Elsewhere in Scotland	1	.	6	7

Training requirements: Preferred duration for face to face training

	N	%
Half day	2	22
1 day	7	78
Total responding	9	100

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

	N	%
No	5	83
Yes	1	17
Total responding	6	100

Training requirements: Other methods where respondents want training
Note only a small number of respondents answered this question

Method	Level of expertise
Dealing with interactive groups i.e. with nonindependent data sets	Beginner
Smallest Space Analysis	Advanced

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

	Average ranking
Provide support/advice on using quantitative methods	3.4
Provide support/advice on using software packages	3.8
Provide a forum for like-minded people to have dialogue about quantitative methods	7.2
Enable people to make contact with potential collaborators	6.2
Develop modules for teaching quantitative methods at postgraduate level	5.6
Run training or CPD courses on intermediate/advanced level statistics	4.7
Run training or CPD courses on basic level statistics	5.4
Run training or CPD courses on using software packages	4.9
Provide information on other training/CPD opportunities	7.1
Provide information on relevant seminars and/or conferences	6.7

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	2.6
Find resources for teaching quantitative methods	5.2
Use online training resources for statistical software packages	2.1
Discover related organisations and projects in the UK	4.3
Identify upcoming training or other network events via a calendar	3.7
Find contact details of network members	5.9
Find out about activities of network members	5.4
Discover who in the network has expertise on a given subject	4.1

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	5.4
Add links to websites of interest to the network	4.9
Upload teaching materials or datasets directly for use by network	5.0
Start a discussion about a problem or topic on an online forum	3.0
Respond to a thread on an online discussion forum by a member	5.1

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	1	6	7
Presenting a paper at a seminar	6	2	8
Offering support to other network members on methods or software issues (where appropriate)	4	3	7
Be involved in the development of training or CPD activities	2	6	8
Be involved in developing teaching modules on advanced methods	1	6	7