

University of Glasgow

1. Introductory seminar: 12 January 2010

1.1 Group Feedback Form

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

Networking

Datasets for final year projects

Information on different techniques

Access to network of other researchers

Information/Available resources on a wide range of statistical methods

Update/info on datasets

Training/Seminars on methods and software

Training for PhD students

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

e.g. Lectures, Seminars, Workshops...

Any training programmes with an advanced statistical level

Seminars

Workshops

All of above but particularly workshops – all events should describe in detail what will be covered and the level it will be pitched at.

Consultancy

Lectures

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

Particular methods, software, techniques...

Survival analysis

Sampling theory

SEM

STATA

Quantile?

Panel Estimation

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

Links to training events

Discussion forum

Events page, online resources, links

List of courses

Member profiles

Links to datasets

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

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

Video Lectures

All

1.2 Notes from Discussion

Examples datasets for teaching very helpful. Several willing to provide prepared data with example analyses to network.

Suggested 'taster' to know what is relevant where and to broaden horizons.

Interest in techniques for small datasets

Gwilym suggested AQMeN training could be fledgling courses for new MSc in social statistics.

Social sciences could offer summer projects for maths/stats undergraduates, 8 week projects.

Scottish Health Survey – Lindsay Gray willing to contribute to event.

Could AQMeN include record linkage training?

Stephen Senn highlighted problem of analysis using different software packages

Noted that there is an overload of seminar series currently available and priority of AQMeN should be on hands-on training

1.3 Attendees

Dr Duncan Lee	Lecturer in Statistics
Dr Phil Mason	Urban Studies
Ben Torsney	Statistics
Dr Dely Elliot	Education
Dr Muir Houston	Lecturer in Education
Prof Jacqueline Atkinson	Public Health & Policy
Jane Casey	Centre for Drug Misuse research
Maria Gannon	Centre for Drug Misuse research
Avril Edmond	STRADA
Dunla Cassidy	MRC
Furzana Khan	
Dr. Joanna Ferrie	Disability Research
Katie Gallacher	Public Health & Policy
Louise Craig	Public Health & Policy
Elsa Ekevall	Engineering Education
E Marian Scott	Development Officer
Lindsay Gray	Professor Statistics
Jude Eze	MRC
Thomas Astell-Burt	Statistics
Rebecca Mancy	Education
Ama Maria	
Magdolima	Statistics
Jo Danbolt	Finance & Accounting

Stephen Senn

Geoff Der

Income 7 Health

Convened by Gwilym Pryce.

(Shaded people actually attended, otherwise registered but did not attend.)

1.4 Notes from earlier meeting between Gwylim, Gordon and Helen, 31/11/09

Main points

More scope for joint teaching across Glasgow universities

Believed STATA better than SPSS for more advanced methods and more should learn it

Get around academic licensing by enrolling delegates as students for a day, still take money from them. Thought AQMeN training would be fine re licensing since it is part of the university.

Thought many would like a multilevel models training

Gwylim may be able to make a house prices dataset available for teaching.

Thought it would be helpful to involve stats staff in teaching (now possible course suggested by Stephen Senn). Gwylim would like to teach a course along with a statn. John McColl (maths and stats dept) has done a lot on Online Training.

An MSc in social statistics would encourage graduates with maths/stats degrees into social science.

Thought ambitious to offer stats advice to all comers and there should be strict guidelines – suggestions incorporated into my proposal in forward plan.

2. Survey Results

Discipline

	N	%
Drug Misuse	3	6.1
Economics, Finance, Management, Business, Marketing	21	42.9
Education	8	16.3
Health Related	4	8.2
Law and Criminology	1	2.0
Other	1	2.0
Politics, Employment Research	3	6.1
Social Science, Humanities	2	4.1
Social Work	1	2.0
Statistics	1	2.0
Urban Studies	4	8.2
Total responding	49	100.0

General level of expertise in quantitative methods

	N	%
1. Not given	8	16
2. Non-user of all methods	5	10
3. Beginner level in at least one descriptive method	2	4
4. Intermediate level in at least one descriptive method	7	14
5. Intermediate level in at least one advanced method (beyond linear regression)	17	35
6. Advanced level in at least one advanced method (beyond linear regression)	10	20

How would you describe yourself?

	N	%
	26	53.1
Professional statistician	3	6.1
Regular user of quantitative methods	11	22.4
Occasional user of quantitative methods	7	14.3
Non user but consumer of results of quantitative analysis	2	4.1
Total responding	49	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	41	33	4	10	12
Comparing frequencies or means	35	39	6	8	12
Graphical output (eg bar-charts, histograms, pie-charts etc)	41	35	4	8	12
Transforming data distributions (eg log, quadratic)	16	29	8	24	22
Indices of inequality (eg GINI index)	8	18	14	39	20
Measures of association (eg correlation)	31	33	12	8	16

Expertise: Regression analysis

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Simple/multiple linear	27	20	27	10	16
Log-linear	14	18	18	31	18
Logistic/ordinal/multinomial	12	16	18	29	24
Other (eg poisson, negative binomial)	4	12	14	43	27

Expertise: Longitudinal analysis

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Event history analysis	2	6	10	55	27
Times series analysis	4	8	18	39	31
Trajectory modelling	.	4	12	59	24
Other longitudinal analysis	4	2	16	47	31

Expertise: Grouping analysis

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Principal components/factor analysis	4	20	16	41	18
Cluster/classification analysis	4	10	12	55	18
Latent class analysis	2	.	10	65	22
Multi-dimensional scaling	.	4	12	59	24

Expertise: Other complex analysis methods

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
Probability, set theory, matrix algebra	4	12	14	43	27
Multi-level modelling	.	6	18	49	27
Structural equation modelling	.	4	14	53	29
Spatial analysis/modelling	.	8	10	59	22
Geographically weighted regression	.	2	10	67	20
Econometric techniques	4	18	10	43	24
Simulation and risk analysis	2	10	12	51	24
Missing value analysis/imputation	2	6	14	49	29
Content analysis (eg NVivo)	.	16	12	43	29

Expertise: Software packages

	Percentage respondents with each level of expertise				
	Advanced	Intermediate	Beginner	Non user	Not given
SPSS	8	39	18	10	24
Stata	6	6	16	39	33
SAS	.	.	2	57	41
R/S/SPlus	2	.	2	57	39
Minitab	6	4	8	41	41
GAUSS	.	.	.	59	41
Amos	.	.	4	53	43
Lisrel	.	.	2	55	43
MPlus	.	.	.	57	43
LatentGold	.	.	.	57	43
MLWin	.	4	6	51	39
ARC/gis	.	.	6	53	41
BUGS (OpenBUGS WinBUGS etc)	.	.	.	57	43

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)	.	4	49	47
Scottish School Leavers Survey	.	8	45	47
Scottish Crime Survey	2	2	49	47
Scottish Social Attitudes Survey	2	10	43	45
Scottish Health Survey	.	18	37	45
Scottish Household Survey	4	10	39	47
Scottish components of national datasets (eg BHPS)	2	10	43	45
Other Scottish datasets	2	14	37	47
Other UK datasets	10	16	29	45
Other datasets	16	4	22	57

Training requirements: Descriptive quantitative analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)				
		Advanced	Intermediate	Beginner	Non user	Not given
Frequencies, cross-tabulation, means etc	15	.	40	13	20	27
Comparing frequencies or means	15	.	40	20	13	27
Graphical output (eg bar-charts, histograms, pie-charts etc)	12	.	33	17	17	33
Transforming data distributions (eg log, quadratic)	22	.	23	5	36	36
Indices of inequality (eg GINI index)	26	.	12	15	42	31
Measures of association (eg correlation)	24	4	38	21	13	25

Training requirements: Regression analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)				
		Advanced	Intermediate	Beginner	Non user	Not given
Simple/multiple linear	28	7	21	32	18	21
Log-linear	27	4	19	15	37	26
Logistic/ordinal/multinomial	28	4	11	21	29	36
Other (eg poisson, negative binomial)	31	.	13	13	39	35

Training requirements: Longitudinal analysis

	Number requiring training	Percentage of respondents at each level (of those requiring training)				
		Advanced	Intermediate	Beginner	Non user	Not given
Event history analysis	24	.	.	17	50	33
Times series analysis	32	3	3	25	38	31
Trajectory modelling	25	.	8	16	48	28
Other longitudinal analysis	27	4	.	22	37	37

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	29	21	21	38	21
Cluster/classification analysis	27	4	19	56	22
Latent class analysis	26	.	12	58	31
Multi-dimensional scaling	26	4	15	50	31

Training requirements: Other complex analysis methods

	Number requiring training	Percentage of respondents at each level (of those requiring training)				
		Advanced	Intermediate	Beginner	Non user	Not given
Probability, set theory, matrix algebra	21	5	19	10	33	33
Multi-level modelling	24	.	4	29	33	33
Structural equation modelling	25	.	.	24	44	32
Spatial analysis/modelling	20	.	5	15	55	25
Geographically weighted regression	17	.	.	18	59	24
Simulation and risk analysis	24	.	13	17	42	29
Missing value analysis/imputation	20	.	10	25	30	35
Content analysis (eg NVivo)	19	.	16	11	32	42

Training requirements: Software packages

	Number requiring training	Percentage of respondents at each level (of those requiring training)				
		Advanced	Intermediate	Beginner	Non user	Not given
SPSS	19	.	32	37	5	26
Stata	16	13	6	38	31	13
SAS	6	.	.	17	50	33
R/S/SPlus	6	.	.	.	83	17
Minitab	7	.	14	29	29	29
GAUSS	3	.	.	.	67	33
Amos	5	.	.	40	20	40
Lisrel	5	.	.	20	40	40
MPlus	2	.	.	.	50	50
LatentGold	2	.	.	.	50	50
MLWin	4	.	.	75	.	25
ARC/gis	4	.	.	50	25	25
BUGS (OpenBUGS WinBUGS etc)	1	100

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

Priority
ABILITY TO INTERPRET OTHERS' STATISTICS
ADVANCED COURSE ON COMPUTABLE GENERAL EQUILIBRIUM MODEL IN GAMS
ADVANCED SPSS ANALYSIS
ALL TYPES OF REGRESSION
BAYESIAN ECONOMETRICS
COMPARISON OF MEANS ANALYSIS
COMPETENCE
COMPLEX SYSTEMS APPROACHES (AGENT-BASED MODELLING, NETWORK SIMULATION)
CONFIDENCE
CONFIDENT AND COMPETENT GRASP OF PRETTY BASIC STATISTICAL ANALYSIS
CORRELATION / REGRESSION ANALYSIS
DATA HANDLING
DEALING WITH LONGITUDINAL DATASETS
DESIGN OF LONGITUDINAL STUDIES
ECONOMETRIC TECHNIQUES
ENSURING THE USE OF APPROPRIATE STATISTICAL ANALYSIS FOR MY MODEL
EVENT HISTORY ANALYSIS
EVENT MANAGEMENT AND TOURISUM IN GLASGOW/SCOTLAND
EXCEL VBA
EXPLAINING QUANTATIVE METHODS TO STUDENTS WHO HATE NUMBERS
GENERAL QUANTITATIVE METHODS
GEOGRAPHICALLY-WEIGHTED REGRESSION

Priority
GIS SYSTEMS
GROUPING ANALYSIS
I KNOW SO LITTLE ABOUT THESE RESEARCH METHODS MENTIONED THAT IT IS DIFFICULT FOR ME TO COMPLETE THIS SURVEY. PERHAPS WHAT I WOULD LIKE FIRST OF ALL IS AN OVERVIEW OF WHAT IS AVAILABLE, WHAT THE DIFFE
IDENTIFYING SOURCES
INTERNET SKILLS
LEARNING ANOTHER STATISTICAL LANGUAGE
LEARNING STATA
LEARNING TO USE SAS!
LIFE ANALYSIS OF GAY/BISEXUAL MUSILMS IN SCOTLAND
LOGISTIC/ORDINAL/MULTINOMIAL REGRESSION ANALYSIS
LONGITUDINAL ANALYSIS
LONGITUDINAL ANALYSIS EVENT HISTORY ANALYSIS
LONGITUDINAL MODELLING
MORE ADVANCED STATISTICAL ANALYSES
MORE ADVANCED USE OF SPSS AND MINITAB
MULTI-LEVEL MODELLING/MLWIN
MULTILEVEL MODELLING
MUTLI-LEVEL MODELIING
NVIVO - THE BASICS; HOW TO USE;
PANEL DATA ANALYSIS
PANEL ESTIMATION
PANEL ESTIMATION AND CONTROLLING FOR CLUSTERED STANDARD ERRORS
QUESTIONNAIRE DESIGN, CODING AND ANALYSIS
RATS
REGRESSIONS
RESEARCH PROPOSAL WRITING
RISK ANALYSIS, SIMULATIONS
SHIPPING INDUSTRY IN SCOTLAND
SIMULATION
SPATIAL ECONOMETRICS
SPSS
SPSS
SPSS ADVANCED (REGRESSION ANALYSIS)
SPSS AND USEAGE OF QUANTITATIVE METHODS
SPSS OR STATA
STATA TRAINING
STATISTICAL DATA ANALYSIS AND THE UNDERLYING ASSUMPTIONS (E.G. FOR T-TESTS)
STRENGTHENING CONCEPTUAL CLARITY OF FACTOR ANALYSIS
STRUCTURAL EQUATION MODELIING
STRUCTURE EQUATION MODELLING
TIME SERIES
TIME SERIES ANALYSIS

Priority
TIME SERIES ANALYSIS
TIME-SERIES ANALYSIS
TO APPLY KNOWLEDGE GAINED FOR PURPOSES OF IMPACT RESEARCH
TO GAIN GENERAL KNOWLEDGE OF VARIOUS QUANTITATIVE METHODS (AS MENTIONED ABOVE)
TO GAIN IN-DEPTH KNOWLEDGE OF SPECIFIC QUANTITATIVE METHODS THAT WILL BE USEFUL FOR PRESENT AND FUTURE RESEARCH
TRAINING MYSELF TO USE THE REQUIRED STATISTICAL PROGRAMS (SPSS AND LISREL)
TREND ANALYSES
USE OF STATISTICS FOR SMALL SAMPLES

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	30	8	2	40
Presentations by experts, but no hands-on training	9	12	15	36
On-line training	18	12	9	39
Training by video link	12	10	15	37
Step by step examples on the website	19	15	4	38

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	2	25	28
Dundee	2	6	20	28
Edinburgh	7	15	8	30
Glasgow	37	3	.	40
St Andrews	5	4	21	30
Stirling	8	14	8	30
Elsewhere in Scotland	.	3	16	19

Training requirements: Preferred duration for face to face training

	N	%
Half day	13	33
1 day	13	33
2 days	10	26
3 days	2	5
5 days	1	3
Total responding	39	100

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

	N	%
No	24	77
Yes	7	23
Total responding	31	100

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

Method	Level of expertise
Agent-based modelling	Intermediate
Computer simulation	Intermediate
I wish there will be an advanced course on computable genral model. my level now	Intermediate
Network simulation and analysis	Beginner
SPSS	.
panel estimation methods and problems	.
this is a software package: Excel VBA	Beginner

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

	Average ranking
Provide support/advice on using quantitative methods	2.3
Provide support/advice on using software packages	3.9
Provide a forum for like-minded people to have dialogue about quantitative methods	5.6
Enable people to make contact with potential collaborators	5.8
Develop modules for teaching quantitative methods at postgraduate level	6.3
Run training or CPD courses on intermediate/advanced level statistics	3.4
Run training or CPD courses on basic level statistics	5.1
Run training or CPD courses on using software packages	4.3
Provide information on other training/CPD opportunities	7.2
Provide information on relevant seminars and/or conferences	7.3

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	3.0
Find resources for teaching quantitative methods	5.1
Use online training resources for statistical software packages	3.7
Discover related organisations and projects in the UK	5.4
Identify upcoming training or other network events via a calendar	4.6
Find contact details of network members	5.3
Find out about activities of network members	5.1
Discover who in the network has expertise on a given subject	4.8

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	5.7
Write descriptions about my activities & expertise for the website	5.8
Link to my social network sites (Facebook, LinkedIn, Twitter, Wordpress...)	5.8
Write content about topics of interest to myself and the network	5.6
Add links to websites of interest to the network	5.3
Upload teaching materials or datasets directly for use by network	5.6
Start a discussion about a problem or topic on an online forum	1.9
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	9	21	30
Presenting a paper at a seminar	14	14	28
Offering support to other network members on methods or software issues (where appropriate)	16	13	29
Be involved in the development of training or CPD activities	15	17	32
Be involved in developing teaching modules on advanced methods	6	22	28