



Q-Step

A step-change in
quantitative social
science skills

Funded by the
Nuffield Foundation,
ESRC and HEFCE



Cardiff School
of Social Sciences



Pilot QCF L₃ Social Analytics

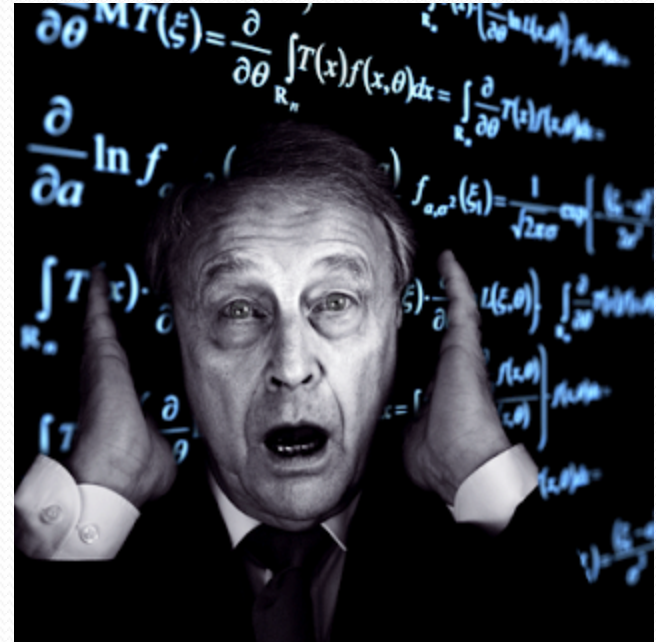
Sept 2014

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Quantitative approaches in the social sciences

- Shortage in Social scientists with quantitative background (Q step initiative)
- Universities and Science Minister David Willetts: "Evaluating and analysing data is an essential part of science education and we need more people with these important skills."
- A level/FE Sociology content – research methods module at AS and A2



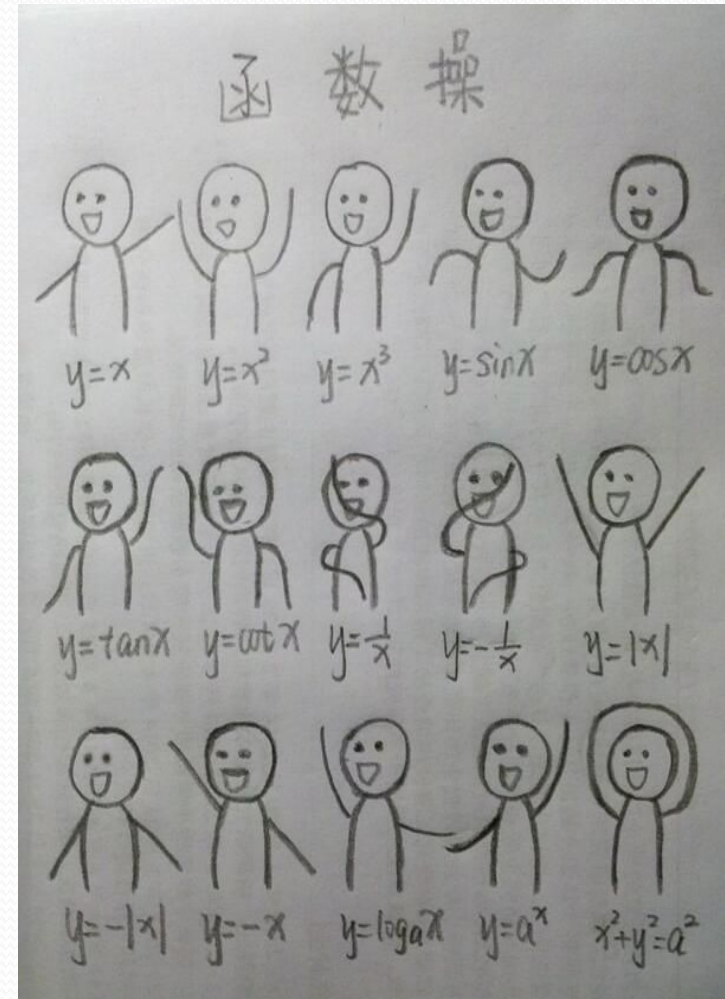
What is Q Step?

- Q-Step is a new nationwide initiative to promote a step change in quantitative social sciences
- £19.5m programme funded by UK Government
- Involves 15 centres - only Q-Step Centre in Wales is based at Cardiff University
- Contextualised statistics

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- A major strand of the Cardiff Q-Step Centre work will focus on the development of a new QCF L3 in Social Analytics
 - Working with WJEC, Welsh Government and Royal Statistical Society (now ICSE – International centre for Statistical Education)
 - Launch a new BSc Social Analytics in September 2016/17

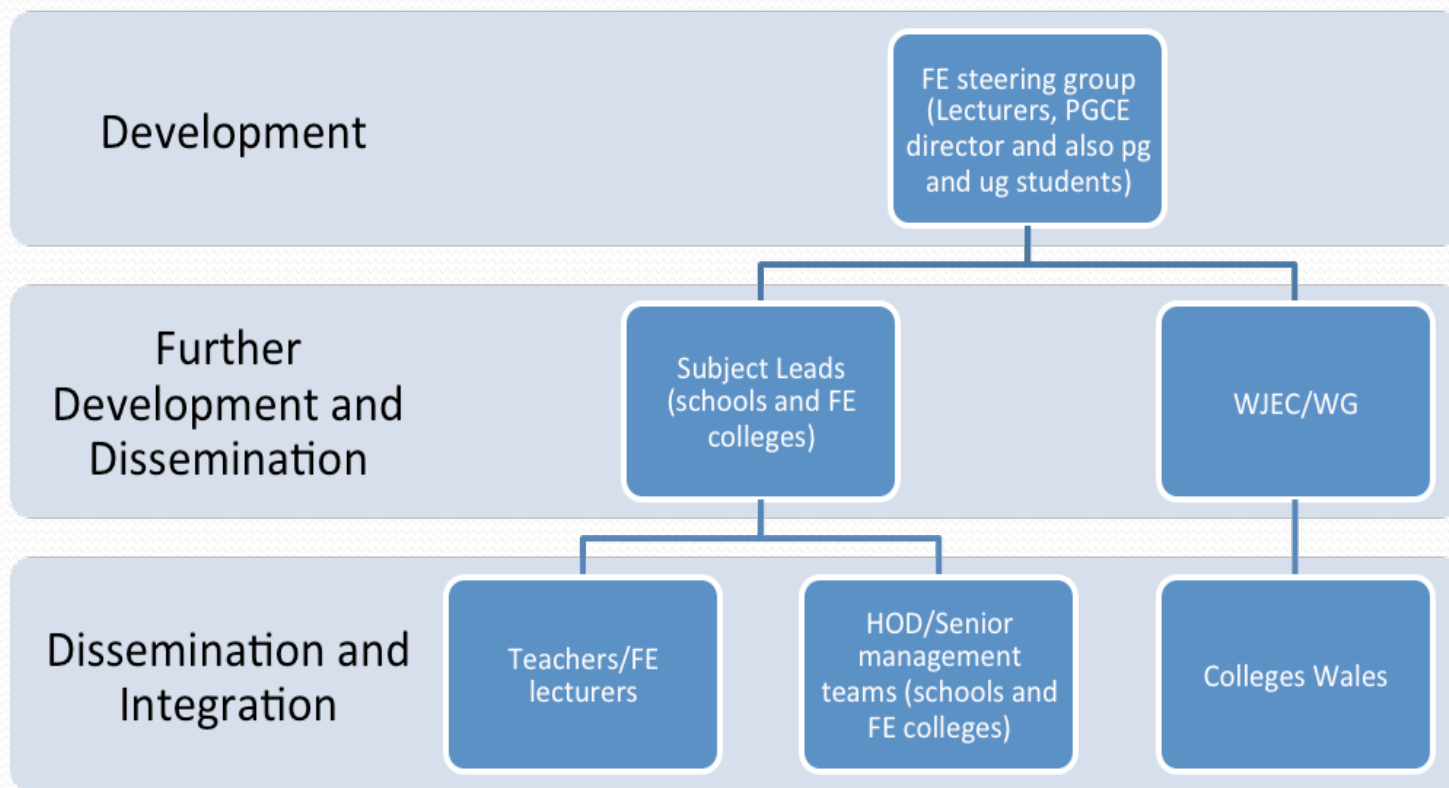
Post -16 education

- Numeracy agenda of WG
- Move towards linear model (A' levels)
- England - end of A' level course assessments
- Wales end of year (AS) assessment
- Current validation work WJEC
- Access to HE diplomas



Creation of a new A' level in SA

- Working with WJEC, RSSCSE (now ICSE – International centre for Statistical Education) and WG
- Teacher/Lecturer Secondment
- PG input
- School/FE Institution support (Cardiff, Bridgend and NPTC)



Pilot scheme proposal

- From Sept 2014
- Two hours per week (Wed)
- Hosted at Cardiff University
- Travel will be supplied
- Worksheets & activities to be completed in class
- Certificate of attendance
- Welsh Baccalaureate requirements (2015 compulsory)

Programme: QCF level 3 Pilot in Social Analytics

Course: Unit 1 – Social Science in Practise (SSP)

Unit 2 – Applied Statistics (AP)

Scheme of Work 2014/15 (Wednesday 4.00-5.00pm – break – 5.30-6.30pm)

Week	Date (Week commen cing)	Topic		Statistics covered	Assessment/ Assignment
		Unit 1 SSP (4-5pm)	Unit 2 AP (5.30-6.30pm)		
1	15/09	Induction		Designing research questions	
2	22/09	Introduction to health	Psychology of learning introduction	Designing research questions and correlations	Unit 2 AP - Launch coursework Hand in data: Draft:19/12/2014, Final: 13/02/2015
3	29/09	Health changes over time	What is intelligence?	Hypothesis testing	
4	06/10	Infection and disease	Food and learning	t tests	
5	13/10	Epidemiology	Genes and learning	t tests	
6	20/10	Data analysis and simulation		ANOVA	
	27/10	Half Term break			
7	03/11	Data analysis and visualisation Coursework and presentation guidance		ANOVA	Unit 1 SSP: Coursework/ Worksheets
8	10/11				
9	17/11				
10	24/11	Gender and Health professionals	Boys vs girls	ANOVA	
11	01/12	Science tech and the real world introduction	Mass media and journalism introduction	Chi squared test	
12	08/12	What is science?	Science in the media	Chi squared test	

Unit 1 – Social Science in Practice (SSP) Module outline

- Health and disease
- Science, technology and the real world
- Crime and deviance

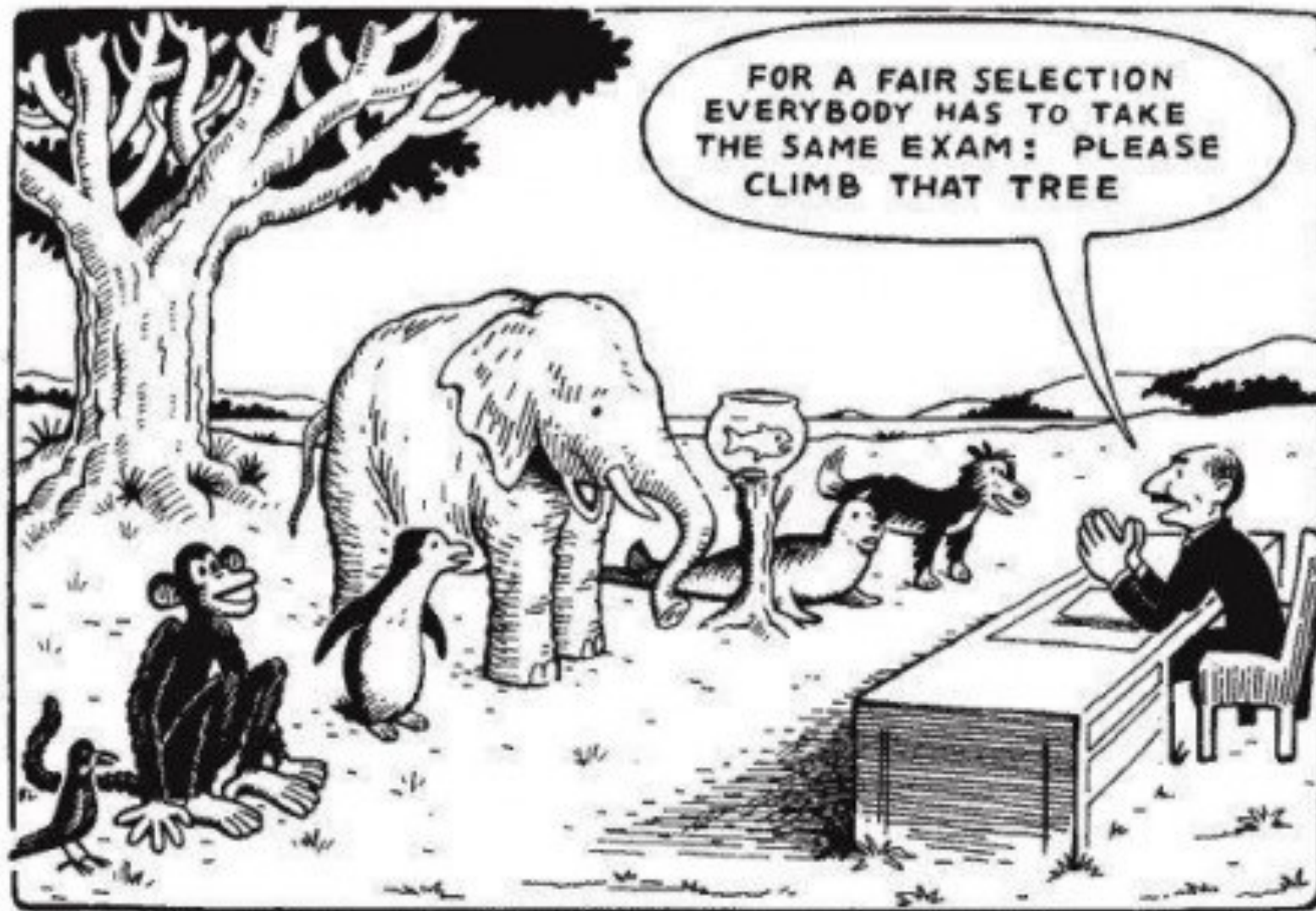
1. Health and disease

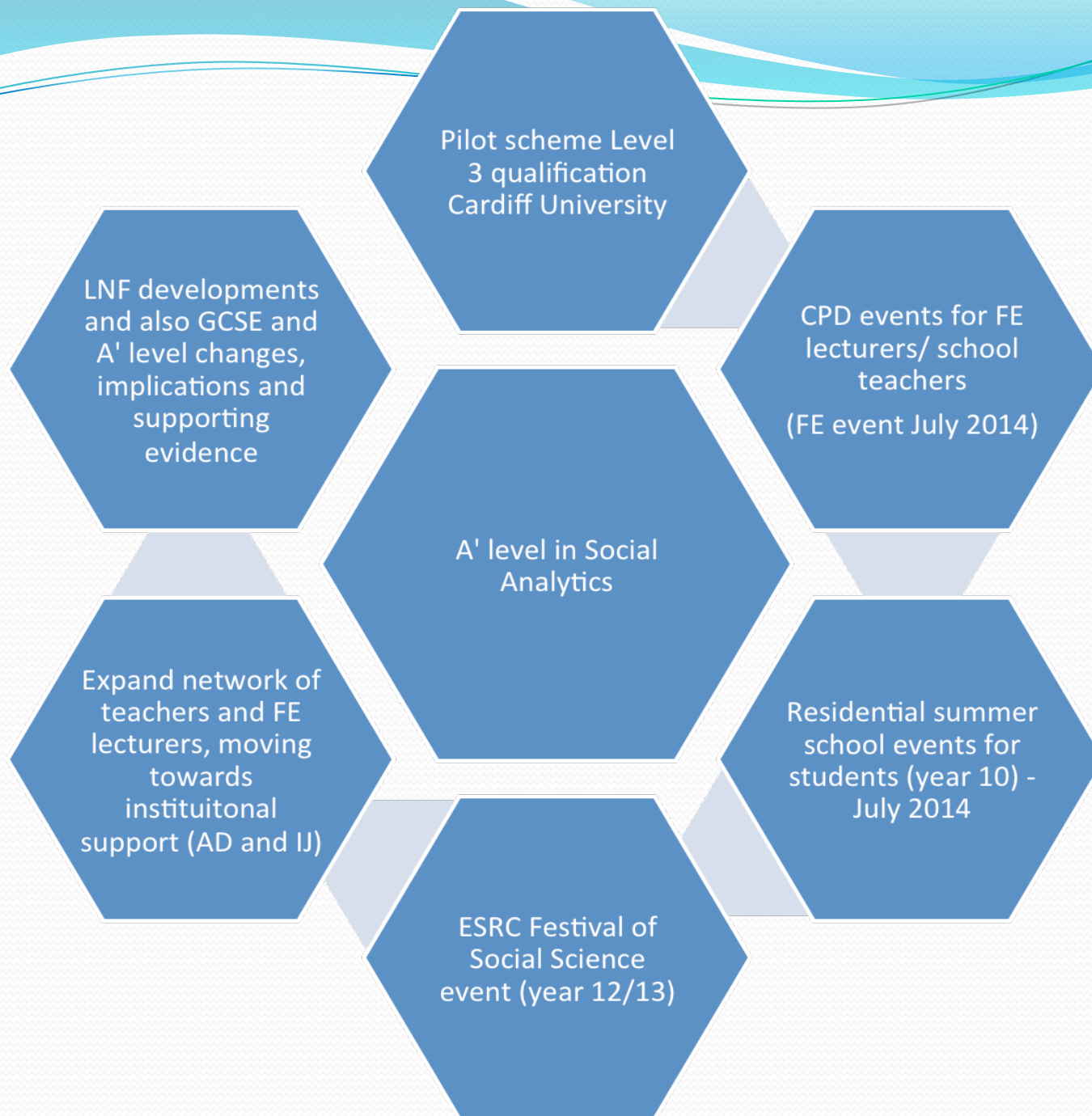
Learners should:

- Know how health and disease can be measured within and between populations
- Explain the strengths and weaknesses of different methods used to measure health and disease
- Discuss how biological health markers can change within a population over time
- Describe factors that can influence the spread of disease
- Outline the importance of health professionals in maintaining good health within a population
- Discuss the changing role of health professionals over time
- Be able to design relevant research questions and hypotheses to explore issues linked to health and disease
- Perform simple t tests to compare secondary data sets, linked to health and disease

Benefits

- Suitable for students studying sociology, psychology, mathematics, geography, and the sciences in either years 12 or 13
- Opportunity to participate in the development of a new L3 Social Analytics Qualification
- Admissions tutor briefings from Cardiff University
- Improve students' current attainment
- Enhance student UCAS applications
- CPD opportunities







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