

Accreditation of Professional Statisticians: Current Perspectives and Challenges

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Road Map

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- Current status in Europe
- Current initiatives
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- Accreditation
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- Considerations for PhUSE

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- The content of this paper does not represent PSI position or policy.

Accreditation: Why?

- Standard in many professions (especially skill-based trades)
- Most evident in Pharma sector for clinicians with rigorous continuous professional development adherence to maintain medical licenses
- Accreditation of Statisticians has been much discussed and reviewed over the last 15 years.
- Voluntary accreditation exists within several professional organisations and of these, a subset are specific to biostatisticians.
- RSS and ASA are currently reviewing or implementing accreditation for professional statisticians.

Accreditation: Why?

- As the profession of pharmaceutical statistics becomes ever more technically based and innovation in trial design is reliant on the inherent skill set of the statisticians, it becomes increasingly important to ensure that the statisticians are appropriately qualified.
- There is a desire to demonstrate both skill sets and continuous professional development (CPD) in a consistent and measured way.

Accreditation: Why?

- Vital acknowledgment of specific statistical techniques and methodologies
- Framework to demonstrate our expertise to
 - Employers
 - Peers
 - Outside agencies (eg regulatory authorities)

Current Status in the UK: CStat

- Royal Statistical Society introduced the Chartered Statistician (CStat) accreditation in 1993
 - Requirement of approved statistical qualification (or equivalent) and approved professional development and experience for minimum of 5 years
 - Completion of CStat application form and 2 referees required to vouch for the experience, including the duration, level and type of experience
 - Voluntary Maintained Professional Certificate (MPC) available to formally document CPD as an addition to lifetime CStat award
 - CStat status retained with RSS membership renewal
 - Not formally recognised by any regulatory authority as an approved status



Current Status in the UK: CSci

- Holders of CStat can apply for CSci status, which is governed by the Science Council, on the basis that RSS is recognised as a Licensed Body for the award of CSci status
- CSci requires CPD recording and a formal annual re-validation of CPD to retain the award

“The Chartered Scientist qualification (CSci) reflects best practice in science and is set at a benchmark level throughout the science professions. With increasing focus on the interdisciplinarity of science it is vital for scientists to have professional recognition that is applicable across a range of scientific disciplines”

Current Status outside UK

- **Within mainland Europe:**

- Germany: German Society for Medical Informatics, Biometry and Epidemiology (GMDS) and German Region of the International Biometric Society established criteria for the certificate in Biometry (1981). This received recognition by the German Federal Institute for Drugs and Medical Devices (BfArM) as proof of qualification of the responsible biometrician.
- Netherlands: Dutch Society for Statistics and Operational Research (VVS) set up accreditation for biostatisticians (in medical, biological, agricultural and environmental applications) since 2002.



Current RSS initiatives

- RSS Professional Affairs Committee is engaging with employers in different sectors to explore their thoughts on professionalism.
- Meeting has been held (5 Feb 2010) with Pharma representatives, including the PSI Chair. A wide range of views (advantages and disadvantages) were shared at this meeting
- A meeting is in the planning stage with the Government sector.
- Discussion has focused on increasing the value to employers of CStat, and making it more internationally recognised.

Current ASA initiatives

- ASA have been considering Accreditation over the last 15 years, and in the last year have made a positive move towards setting up Accreditation.
- ASA are currently developing a similar professional award to RSS for its 16,535 members (PStat) that will require ongoing CPD and revalidation.
- Focus on “Voluntary Individual Accreditation” to *“reach out to underserved groups while continuing to serve our traditional constituencies”*
- Implementation Group has been set up to look into formally implementing PStat

Current ASA initiatives: PStat Proposal

- The PStat accreditation will be a combination of
 - Formal qualifications in statistics
 - Relevant practical experience
 - Demonstration of professional competence
 - 2 references
- Applications will be reviewed by the Accreditation Board (to be created) to oversee entire process
- Accreditation will not be for life, but for 5 years, then renewal process
- Recent developments:
 - “intent-to-apply” form on the ASA website
 - Mutual recognition for PStat and CStat

Accreditation: The case for..

Recognition

- Professional recognition
- Mandatory CPD alongside CStat could raise profile of such an accreditation and motivate statisticians to retain it
- Positive response to some unquantified real or perceived problem
- Greater visibility for accredited statisticians: this can support initiatives relating to supporting smaller companies without employed statisticians
- Mutual recognition of accreditation across organisations worldwide provides a minimum global competency level

Accreditation: The case for..

Standards

- Establish a minimum competency level
- Provides a mechanism for filtering poor performers
- CStat Code of Conduct includes the option to evict from RSS if not adequately followed
- Increasing the quality of statistical input within submissions to authorities, by requirement of minimum competency levels (based on perception of poor quality submissions still received by regulatory authorities)

Accreditation: The case against

Professional need

- Only other profession with such an accreditation that requires regular review and mandates such scrutiny is the medical profession. Do we really require this level of scrutiny and review?

Professional worth

- Would it provide a clear benefit to the individual?
- Current CStat accreditation is not hard to get and straightforward to retain

Accreditation: The case against

Measurement

- Assessment of qualifications worldwide – difficult to assess the different country/affiliation/type and level of qualification
- Measurement of achievement is not completely transparent. Should it be attending a course or practical assignment or monitored application? Level needs to be appropriate, measurable and achievable
- Needs to distinguish between difference of opinion and minimum expected standard

Accreditation: The case against

Cost/Administrative burden

- Introduces a level of bureaucracy
- Training course fees will increase with the requirement of courses being accredited
- Removal of accreditation for individuals (“struck off”) may invoke legal procedures

Considerations for PhUSE

- What value would you give to Accredited Programmer status?
 - As a programmer/developer?
 - As an employer?
 - As a regulator?
- What measurements are the most important to you?
 - Formal qualifications (such as SAS Certification)?
 - Practical applications?
 - Documented evidence of applications?
 - Pharmaceutical applications?
 - Peer acceptance?
- What level should the accreditation be at?
 - National level / EU level / Global level ?



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If you have any further questions, I will be available at the Quanticate stand during lunch and until 3pm today or email on

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