

Report to NZSA Executive 10 August 2016

Continuing Professional Development (CPD)

The subcommittee on CPD proposes that the NZSA Executive adopt, (or adapt), the following vision and steps to progress continuing professional development

Vision (on 5 year plus time frame): That NZSA is recognised as the key facilitator/provider outside the formal education sector of professional development for statisticians and data analysts.

Scope: This CPD programme is complementary to activities within the formal education sector, where the education institutions themselves play the central role, and the activities of the NZSA Education committee. CPD is also complementary to any mentoring programme the NZSA may organise.

Next steps: (6 - 18 month time frame):

CPD committee to

- 1) Seek nominations and volunteers to provide workshops, courses, facilitate interactive sessions on topics such as those outlined below, to be endorsed or organised under NZSA auspices,
- 2) Contact kindred organisations and use networks to find suitable presenters who may be visiting or prepared to visit NZ.
- 3) Consult, including any exec members who express interest, on how to assess which activities and presenters are appropriate to have NZSA organise or endorse
- 4) Explore options for providing CPD in association with the 2016 and 2017 NZSA conferences;
- 5) Approach SSAI with a view to them providing administrative support for workshops that NZSA may organise as they currently do for SSAI workshops
- 6) Explore possibilities of sponsoring or promoting activities that encourage good statistical practice through, or for, organisations and forums such as
 - a) R/SAS and other software user groups; NZ Analytics forums;
 - b) kindred professional organisations (such as fellow affiliates of Royal Society of NZ), in fields such as biology, geography, economics, OR, etc.
 - c) organisations that wish to increase skills of staff in data analysis and statistics, such as government departments, CRIs and other organisations with data analysis needs.

Finance: CPD activities will be designed to be self-financing. NZSA agrees in principle to underwriting specific CPD activities, and recognises that appropriate projects would qualify to apply for funding from the Campbell fund.

Background

What is CPD?

Many professions have explicit expectations that their members undertake CPD to ensure their skills are up-to-date or at least have not deteriorated. If NZSA's mission is

... to lead New Zealand to value and make intelligent use of statistical thinking and good statistical practice,

it seems important that we encourage the development of skills and knowledge that enable this. As it is the whole of New Zealand, not just NZSA members, we are encouraging, providing CPD via NZSA gives us an excellent opportunity to achieve this goal. It is also highly beneficial in raising the profile of NZSA outside the small subset of current users of statistical skills and tools.

Who is the potential Audience?

1. Statisticians in academic institutions
2. Statisticians working as a group (e.g. Statistics New Zealand, larger groups at Crown Research Institutions)
3. Statisticians in small groups or alone (e.g. DoC, smaller CRIs)
4. Data analysts and others using statistics and data analysis tools in their work. May need to subdivide into those with
 - a. some knowledge of statistics, maths and IT
 - b. limited or no knowledge in those subjects.

We are working on the assumption that those within academic institutions will already have pathways for continuing development within their institutions. This may also be true for those in larger groups of statisticians. Our proposals therefore relate primarily to the other groups, with an initial focus on 3, and extending to 4, and 2.

The programme would aim to be particularly relevant to those in the early stage of their careers, ("young" statisticians and analysts).

What Sort of Content would form part of CPD?

- Statistical modelling, including extensions of the linear model, eg logistic regression, GLM, mixed/hierarchical/multilevel models; tree-type models
- Advanced statistics (hierarchical Bayes, survival analysis)
- Statistical Tools (e.g. R, Python)
- Data science skills (e.g. database handling, data cleaning and wrangling, data visualisation)
- Other technical skills (e.g. microsimulation)
- Personal skills (e.g. communicating technical ideas, consulting)

What Could be the Role(s) of NZSA?

- Provider.
 - Often there are up-front costs (e.g. travel costs, venue hire, printing) that are required to be paid before course enrolments.
 - Some courses make money, some don't. Can balance these out. However we expect the overall financial outcome to be positive
 - Most likely existing courses identified rather than commissioned
 - Can liaise with SSAI to provide courses and organisational support. Either in one country or repeated across countries to share some costs.
 - Combine with NZSA conference
- Facilitator
 - Provide advice and assistance.
 - Support and actively encourage local groups (e.g. WSG, Canterbury Tales) or subject matter groups (e.g. R-Users). This includes encouraging creation of new groups.
 - Small amount of monetary seeding?

- Provide contacts in terms of hosting.
- Provide assistance to organisations seeking to develop their staff e.g. putting them in contact with carefully chosen known trainers for bespoke short courses or workshops
- Branding and co-sponsoring
 - Agree to advertise
 - Say “NZSA-approved”? Raises quite a few questions but need to recognise that if NZSA is associated, even by advertising, there could be consequences if attendees are not happy with outcome.
 - Most likely courses being instigated by another group. Need to be careful with this that we don’t get our name associated with rubbish or nakedly commercial products.

What NZSA could provide

- Training courses of various lengths.
- Workshops
- Places and ways for like-minded statisticians to interact.
- Places and ways for people doing on-line course to interact. Perhaps provide mentor as well?
- Data hacks?

Appendix

Other Professional Statistical Organisations

Statistical Society of Australia [link](#)

- Various courses and workshops
- “We are always looking for people to present short courses on statistical topics of interest as part of the SSA continuing professional development program.”

Royal Statistical Society [link](#)

- Public courses. Foundation and Professional Course
- In-company courses – mainly from public programme above
- On-line courses
- Web content from conferences and seminars (e.g. Beveridge lecture)

American Statistical Association [link](#)

- CE courses at JSM
- Web-based lectures
- Council of Chapters Travelling Courses
- Web content from conferences and seminars (e.g. President’s Invited)

[Added October 2016] -from ASA’s strategic plan [link](#)

- Context: The ASA's professional and personal development programs, including meetings, are well attended and a major strength of the association. JSM continues to grow in size and diversity. However, continual evaluation of the format (including digital formats) and focus of meetings is needed to serve an increasing diversity of member needs.
- Objective: Provide a portfolio of professional development opportunities to serve the diverse needs of our profession and attract new members
- Strategies: (a) Identify the professional development opportunities, including possible new learning venues, that our stakeholders need and the ASA is best positioned to provide; (b) develop and implement plans to provide these opportunities