

Guidelines for Consultation with GU Research Methods Advisors (GURMAs) on Statistical and Mixed Methods

As demand upon time for GURMAs is high, we have developed this set of guidelines for researchers and HDR candidates to read before seeking advice, including the process for seeking advice.

Introducing the GURMAs. [Assoc Prof Samantha \(Sama\) Low-Choy](#) is Senior Statistician, with nearly three decades of experience in advising researchers on statistical analysis (of different paradigms), including mixed methods. [Dr Judy Rose](#) is a Social Scientist and Mixed Methods advisor, with 10 years' experience as a social science researcher, and 2 years' experience advising researchers on mixed methods. Together they bring a considerable depth and breadth of knowledge and experience in research methods, from these different perspectives of a methodological researcher (with multidisciplinary applications) or a social scientist with a strong interest in methodology. This enables them to provide advice and support suitable for researchers of different levels of expertise, working on research problems in different disciplines across Griffith University.

What GURMAs do. Sama and Judy bring complementary expertise and have different strengths in research engagement, collaboration and publication. Their teaching and in-house service responsibilities focus on advising and collaborating with researchers and research teams, and on providing specialist workshops delivered via the [Research Education & Development \(RED\) team](#) in the Office of Research.

Where are GURMAs? The two GURMAs are formally located in the Office of the Pro-Vice Chancellor, Arts, Education & Law Group but their role is to provide a service across the whole University. Their offices are currently virtual, with meetings conducted via video-conferencing.

Types of Support from the two GURMAs in developing any research proposal or in engaging in any research project may fall within a continuum ranging from consultation to collaboration. Consultations may start with a tentative search for potential ways forward, troubleshooting when an issue is encountered, or to address reviewer feedback. More significant consultations may lead to an on-going collaboration with the GURMA, for example in the form of HDR supervision, involvement in externally funded projects, or co-authorship of research publications.

Communication. When advising HDR candidates on their research, this guidance is provided with the involvement of the candidate's supervisors, who will be kept informed about advice provided.

Confidentiality. All advice on research methodology and the topic of research is kept strictly confidential, by the GURMAs, although they may discuss methodological details with each other. We expect that, similarly, researchers and HDR candidates will also keep advice on methodology confidential, unless specifically otherwise advised, particularly where methodology is innovative which on occasions could be the basis for a joint publication on the methodology and/or its application.

Acknowledgment. It is important that standard research protocols are applied in appropriately acknowledging advice and research input provided by GURMAs in research grant applications, publications or other outputs.

Seeking Advice or Involvement. Support from GURMAs may be sought by following the process below, to discuss their possible involvement or advice. In so doing, it should be appreciated that they may not be available immediately and that their involvement will be subject to availability of their time and the nature of the request for support.

1. Fill out the online form as a [New Client for Research Methods Advice](#). This enables us to assign an appropriate advisor, and to track workload.
2. Fill out the second online form to describe a [New Research Problem](#). For a more complex problem, you may wait to do this during your first consult.
3. Towards the end of each consultation, work with the GURMA to write [Research Methods Advice Minutes](#), which lists decisions and agreed actions (with due dates). We recommend this is attached to your next calendared appointment, disseminated to other team members, and is deposited into the RMAM database within 24 hours of meeting.

Biography for Sama Low-Choy

(experts.griffith.edu.au/7376-sama-lowchoy/about)

Sama Low-Choy is an applied statistician who both applies statistical methodology to suit research problems in varied disciplines, and since this sometimes requires tailoring or innovating on standard methods, also publishes research on novel statistical methodology.

Her approach to applied statistics is inclusive of multiple paradigms and epistemologies, ranging from exploratory data analysis and hypothesis testing to statistical modelling, via Frequentist or Bayesian approaches. Her work reveals a strong preference for visualisation of conceptual models, data and statistical results. She also has experience in spatial analysis, hierarchical Bayesian and machine learning algorithms. She has co-supervised over a dozen PhD students plus other HDR projects to completion, in diverse fields of mathematics, computer science, ecology, engineering, psychology, social health.

Since Sama's doctoral research, her research interests have fallen at the qualitative interface of quantitative methods. Eliciting expert knowledge for input into quantitative models has involved developing interviewing and cognitive psychology techniques as well as tailoring informative Bayesian prior models. Other recurring themes in her work include graphical statistical models (SEM, BNs) of complex systems, and how to interpret and model unknown structure such as excess zeros, latent processes, groups and variable selection. Research and teaching interests are strongly interwoven. Recent scholarly teaching considers drama-based andragogy for teaching new statistical thinking, introducing mixed methods to multidisciplinary researchers, and analysing social attitudes of music students. Since 2015 she has been convenor of (now 70) statistical and mixed methods training events delivered via the Office of Research at GU.

Her career has always involved advising researchers across multiple disciplines, at various institutions including Qld EPA, QUT stats consulting unit, and CRCs for plant biosecurity. Her h-index is 20 from 51 peer reviewed publications. Her top 3 papers have 818, 529 and 244 cites. Over the years, she has contributed to attracting over \$5.5M in research funding. Currently she is a member of EFRI ([Hyperlink](#)) and GIER ([Hyperlink](#)), and CI on an ARC LP in education/criminology and a contract on investigative interviewing with Qld Police. She sits on expert panels for a virtual laboratory for biodiversity modelling, and on risks of data linkage in social sciences. She is co-chair of the Bayesian section in the Stats Soc of Aust, Inc.

Biography for Judy Rose

(experts.griffith.edu.au/16998-judy-rose)

Dr Judy Rose is a social scientist with research interests in social inequality, gender justice, and wellbeing as applied to sociology of education, sociology of work and family. Judy is an expert mixed methodologist, with skills in qualitative and quantitative approaches and analysis. She has created innovative workshops on mixed methods, writing survey questions and qualitative survey validation. Judy is familiar with a number of survey platforms: Qualtrics, Lime Survey, Google Forms and Survey Monkey. This skillset includes being adept with the use of software for textual/qualitative/mixed methods analysis (NVivo) and knowledge of survey-related analyses in software for quantitative analysis (SPSS, Stata). Judy's approach to providing advice on mixed research methods is particularly well suited to researchers in education, business, health and the social sciences who are new to research or in early stages of their research design.

Judy has authored 24 publications across a number of disciplines including sociology, criminology, health, education, and more recently, built environment. Overall, 4 papers utilize qualitative research methods, 7 apply quantitative techniques to analysis, and 12 use mixed methods (MM). Of the 11 MM papers 2 used sequential designs, 3 used parallel designs, and 7 used integrated MM designs. Qualitative methods were used in a detailed case study to be published in a book of 25 international case studies by University Cambridge Press (Rose & Baxter, in press 2020) and in a phenomenological analysis of time pressure (Rose, 2017). The quantitative techniques used included regression (Rose & Hewitt., 2018) and multivariate analysis (Troup and Rose, 2012). Mixed methods were central to the design of Judy's PhD thesis (with 4 publications), but also applied in recent work on gambling related harms (Thorne & Rose, 2016), a review of discourses on high-stakes educational testing (Rose et al., 2018) and using a mixed methods approach to combine study findings via multiple literature review techniques and meta-analysis (Almeida, Low-Choy and Rose, submitted, 2020). Her h-index is 10 from peer-review publications.

Judy is the recipient of an AEL grant, with a team of Education, Statistics and Health Industry partners to investigate 'Shaping positive student engagement in middle primary years - mapping and supporting the relationships between student (dis)engagement, well-being and academic performance'. Judy is currently an Adjunct Research Fellow in [GIER](#) and worked as a Research Fellow in [GCI](#).