



PTAS Project Report (for SMALL PROJECT GRANTS)

Project Title: Developing research methods, data analysis and statistics course (RMDAS): engaging students in curriculum development

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Background

The Royal (Dick) School of Veterinary Studies currently has twelve online MSc programmes. There is a repository of statistics resources (on Learn) and various programme level credit and non-credit Research Methods courses for Postgraduate Taught (PGT) students. However, to date there has been little direct involvement from students with the development of a 'research methods and data analysis/statistics' (RMDAS) course. Directly engaging students with curriculum development will ensure that the development of a RMDAS courses will be student-centred, as well as aligning with College (MVM) learning and teaching priorities and contributing to the Universities' Distance Education vision.

What we did

We issued a survey to our online students at different stages in their studies, in order to identify what support and resource requirements they expected or needed (32 responses). We also interviewed six students in order to delve deeper into their expectations, concerns, and requirements. The findings highlighted that there are high levels of anxiety and low levels of confidence around research methods, data analysis and statistics.

We also wanted to determine what format students would prefer content e.g. audio, video, lecture, live sessions, practicals/demonstration. Consequently curriculum design needs to take this into account – pedagogical and technical considerations. We implemented some changes immediately (April 2018) in a 10 week Research Methods & Data Analysis course. This included live demonstrations of R/coding via Blackboard Collaborate, practical/instructions, lectures (in different formats), and regular MCQs so student could build confidence and self-test. The feedback was very encouraging:

“create something beautiful, amazing and interesting, and stop being afraid of it”
(Interview participant 1 discussing data analysis and presentation)

Non-assessed MCQs, “gives you a feeling on how you’re doing”
(Interview participant 3)



Longer term, we are reviewing existing RMDAS courses and (re)designing courses to meet the students' needs, especially in relation to low confidence and high anxiety levels. Consequently, we hope this will empower the students when they commence their dissertation projects.

(We obtained ethics approval from The Royal (Dick) School of Veterinary Studies)

How did you disseminate your findings? The findings have been

- Discussed with Programme Co-ordinators and Directors
- Presented at the Annual Meeting for Teachers of Statistics in Medicine and Allied Health Sciences (June 2018)
- A case study and recommendations is currently being finalised
- An academic article is in progress with the aim of publication in 2019.

What have been the benefits to student learning? Understanding what support/resources are needed and when, as well as ensuring that there are support/resources for students who have different levels of experience and knowledge of research methods or statistics.

How could these benefits be extended to other parts of the university? The findings have provided an insight into what works well, less well, and what students expect on a Research Methods and Data Analysis course. The findings are useful for the development of both on-campus and online research methods, statistics and data analysis courses.

Who can be contacted for further details? Dr Louise Connelly louise.connelly@ed.ac.uk



Financial statement (please delete as appropriate):

This project has remaining funds unused and we require details of how to return the balance. The Principal Investigator or School Administrator appropriate can provide financial statements showing the funding usage as and when required by the UoE Development Trusts who may require it for auditing purposes.

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