Biographical Profile

About Plymouth University
Consistently ranked as one of the leading universities in the UK, and awarded a Queen's Anniversary Prize for Higher and Further Education in 2012, Plymouth has a strong record of excellence, enterprise and innovation across its teaching and research activities. Distinguished by its long-term engagement with business and the community, the University enjoys outstanding links with employers and plays a key role in civic and regional leadership. It is the only university in the world to have been awarded the Social Enterprise Mark in recognition of its work in support of the sector.

With around 30,000 students, including those studying higher education at its partner colleges throughout the South West, the University is one of largest in the UK. It enjoys a high rate of graduate employment and has recently invested more than £150 million in its estate and facilities to enhance the student experience and support world-class research.

Plymouth has embedded sustainability across its operations, and is the overall best performing university in the People & Planet Green League. It is the first modern university to found a medical and dental school – the Plymouth University Peninsula Schools of Medicine and Dentistry – and is the leading provider of Higher Education in Cornwall. For more information, please visit www.plymouth.ac.uk

About the International Centre for Statistical Education
The International Centre for Statistical Education (ICSE) is a non-profit making research centre with the aim ‘to promote the improvement of statistical education, training and understanding at all ages’.

Our work is carried out in four main areas:
1. school and further education;
2. higher education for all courses in which statistics is taught;
3. continuing professional development;
4. society as a whole.

For further insight into our work visit us at: www.icse.xyz

Dr Rana Moyeed – ICSE Statistical Lead
Dr Moyeed is the statistical lead of the newly established International Centre for Statistical Education, where he manages the work of the centre, provides expert statistical advice and leads on new developments for improving the statistical education of undergraduates and postgraduates at Plymouth University.

Dr Moyeed has actively participated in the CPD conference for Mathematics teachers and the Mathematics Junior University, both of which events are held annually at Plymouth University. He has also run short courses on modern statistical methods for Marine Biology and Psychology PhD students.

Gemma Parkinson – ICSE Research Assistant
Gemma presented at the 59th ISI World Statistics Congress in Hong Kong on ‘Good Practice in using Statistics in Statistics Education Research’, a paper produced with Professor Neville Davies. Gemma has participated in a range of outreach activities during her time working for the International Centre for Statistical Education and has worked on a range of school based projects including the WinAtSchool project, in which she works on question development, data analysis and teacher liaison. She promotes the competition via outreach activities, which include school visits and delivering workshops and activities at science fairs and teachers’ conferences around the UK.

Gemma has recently enrolled on the Postgraduate Certificate in Academic Practice.
Dominic Martignetti – ICSE Research Fellow
Dominic works on the CensusAtSchool Project a project aimed at improving mathematics, statistics and data handling skills of school-aged learners. This included the construction of educational games, questionnaires, interactive resources and lesson plans, as well as working on behalf of the Office for National Statistics to promote the 2011 National Census. This involved taking CPD directly to schools and attending educational outreach events aimed at secondary school children.

Dominic also works on the WinAtSchool Project, a National Competition for school-aged learners in mathematics and statistics, for which he leads the development of the quiz and website and works as part of the core organising team.

Project Editorial

Statistical awareness is a combination of three levels of understanding that every person should have. These comprise what a person should: (a) know about; (b) be able to identify and critically evaluate; (c) be able to do. (a) and (b) are crucial in that they establish the broad role of statistics within society. They also help to define good practice in the approach to teaching and learning. Evidence suggests that many graduates who enter the workplace are not statistically aware, even if they have studied modules in statistics during their time at university. Modules in statistics often concentrate on a range of techniques or statistical methods and often can blur the ‘big picture’ of statistics as a useful problem solving science across all subjects that use or produce data.

We aim to identify the proficiency of graduate researchers in statistical problem solving and data handling by focussing on three areas: their knowledge, awareness and skills. The project will take the form of a survey completed by a researcher, in this case M Level and PhD students across disciplines at Plymouth University, and we anticipate other institutions, which can be utilised as a means of self-evaluation.

The ultimate aim is to identify skills and knowledge gaps that young researchers can feed into their development to specially address the needs of a statistical curriculum, vital to any mathematical scientist looking to pursue a career reliant on data analysis and data handling.

Further to the primary aim we hope, based on our findings, to design, write and deliver a set of materials for postgraduate researchers that will raise awareness of the need to ensure that trustworthy statistics are used in research. Note that these materials are relevant for enhancing statistical literacy within all universities within the UK and overseas.

The Elsevier funds will be used to pay for researcher time, this will be to canvas opinion on what should constitute our statistical curriculum, we will then create our survey, distribute it, collate the data and analyse our findings. The funding works for us twofold; it informs young researchers already working within a mathematical science discipline while engaging two researchers, something that would not have been possible without the fund.

Although the secondary aim of the project will not be funded by Elsevier it is only via the fund that we are able to carry out the research necessary to inform the design, construction and eventual delivery of new materials for postgraduate researchers.

www.elsevier.com/mathematics