TEACHING STATEMENT

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1 Teaching Qualifications

Postgraduate Certificate for Teaching in Higher Education and Fellow of the Higher Education Academy

- Oxford Brookes University Expected Completion Jun 2019

Conducting collaborative research into effectiveness of group work and peer assessment in higher education. Have been observed three times by peers and senior colleagues and receive feedback on my practice. Undertaking individual investigation of an issue around teaching in higher education.

Associate Fellow of the Higher Education Academy

- The University of Exeter Since Feb 2018

Received formal training on interactive teaching methods; planning my teaching sessions; assessment principles and challenges; marking and giving feedback; and evaluating teaching practice through pedagogic literature, lenses of peers and students. Formally observed by a senior lecturer in mathematics and observed two lecturers. Composed reflective essays evaluating my teaching practice.

2 Teaching Experiences

Oxford Brookes University Oct 2018 - Present

Teaching Fellow in Mathematics and Statistics Oxford, UK

- Module leader of 5 modules for BSc Mathematics and MSc Data Analytics courses.
- Leading Statistical Programming, Survey Fundamentals, Statistics in Government (all level 7), Quantitative Research Methods, Numerical Analysis (both level 5), and co-teacher for Honours Topics in Mathematics (Modelling with MATLAB level 6)
- Supervising final year undergraduate projects in pure mathematics and statistical programming.
• **Engaging in continual professional development** in education and pedagogy of mathematics and enrolled on PCTHE course to earn a **Fellow of the Higher Education Academy**.

**University of Exeter**

*Teaching Assistant/Private Tutor*  
*Exeter, UK*  
*Sep 2012 - Mar 2018*

- **Sep 2017 - Feb 2018**: MTH 1001 Algebraic Structures, ECM2712 Linear Algebra, NSC1002 Mathematics for Natural Sciences, ECM2706 Vector Calculus and Applications
  
  Led the tutorial and prepared materials for students to discuss during the sessions. Marked formative and summative coursework and provided feedback through three different channels of writing individual feedback on scripts, holding a question and answer sessions to go through students problems, and providing further written feedback/useful information which the module leader added to the online resources for the course.

- **Sep 2016 - Mar 2017**: ECM2702 Differential Equations, ECM2706 Vector Calculus and Applications

- **Sep 2014 - Mar 2015**: ECM2701 Analysis, ECM2706 Vector Calculus and Applications, NSC1002 Mathematics for Natural Sciences

  Private tutoring: ECM3703 Complex Analysis, ECM3707 Fluid Dynamics, ECM3708 Partial Differential Equations

  I had the pleasure of helping two third year mathematics undergraduate students with private tuition. I helped the first student with two sessions of an hour and half each for Complex Analysis and Fluid Dynamics courses for 10 weeks. For the second student I provided help with Partial Differential Equations course. I prepared all the teaching materials and led the students to understand the mathematics involved by starting from the very basic concepts and carefully designing small tests to make sure they follow the material. Both students thoroughly enjoyed having me as their teacher and achieved above 60% in their final exams.

- **Sep 2013 - Mar 2014**: ECM2701 Analysis

- **Sep 2012 - Mar 2013**: ECM1701 Vectors and Matrices, ECM1706 Numbers, Symmetries, and Groups

3 **Teaching Strategy**

The days in which I have teaching activities are the best days of my life. I love mathematics, and this passion fuels my teaching practice to motivate and inspire students, and engage with them in the learning of mathematics. I believe in, and actively employ, teaching techniques that are research informed and led with a particular focus on student engagement. Furthermore, I believe practice, repetition, and discussion with others play an important role in making one become the master of new ideas. The most important part of learning is finding the confidence in ones ability to learn, and the ultimate achievement of a teacher is to enable students to gain this confidence.

To draw from experience, in my teaching sessions, I usually plan to dedicate a part of the session to creating an organized discussion among students in which as a class we aim to solve a particular problem or understand a topic. Therefore, apart from providing the necessary guidance and motivation, I aim to minimize my interference where possible and prefer this part of the session to be student led. I observe this allows the students to learn from each other and be confident about their abilities; furthermore, this gives them the opportunity
to make mistakes so that they can understand the reasoning as to why a particular idea is not a valid solution to a certain problem. In my practice I employ a variety of teaching techniques ranging from direct lectures, group presentations, and flipped classroom where groups of students are in charge of producing teaching materials and delivering presentations which are peer assessed. I am also highly interested in the best use of technology in higher education and constantly use interactive slides and teaching/learning web resources in my sessions.

I can further touch upon my experience as being a private tutor. In these sessions, I would provide some information on applications of the topic studied in research and industry together with the short-term objectives of our session. Then starting with a simple idea, I would guide the student, patiently, through questioning, even sometimes reviewing fundamental concepts, to arrive at the required formula, identity, or proof. I would often manage to achieve this in such a way that the student would have the impression that it was he or she who arrived at the result without any help at all. In doing so, I would aim to make them confident in their own ability and realize that they too have the capability to learn and perform complicated procedures. In the subsequent sessions, I would review previous sessions topics, or provide questions from a problem sheet, to reinforce and consolidate the materials.

In my teaching role, I strive to augment my experiences with obtaining up-to-date knowledge of pedagogy. I have completed many courses relating to learning and teaching in higher education and currently on course to become a fellow of the higher education academy. To this end, I constantly look for opportunities to develop my knowledge of pedagogy and to remain informed about modern teaching methods. Recently, I have been observing senior lecturers in the mathematics department, who teach a variety of subjects to students at different stages of their course, with a focus to learn about their practices and reflect on factors that make them successful. Subsequently, I also had the opportunity to be formally observed in many of my teaching sessions by my senior colleagues who have provided me with invaluable feedback, which has allowed me to further refine my practice.

These valuable experiences I aim to build upon in my future practices. In particular, I have had the opportunity to reflect on them in depth as a part of my training to obtain my latest teaching qualification. Thus, my experiences together with my enthusiasm for teaching and the pedagogy of mathematics guide me to succeeded as an effective teacher.

4 Peer Observation Feedback

Statistical Programming (Level 7), Oxford Brookes University

Observer: Elizabeth Lovegrove
Subject Coordinator for the PCTHE

Nov 2018

Strengths: Nice to see use of mid-module feedback and responses to it. Good use of questioning with the students, checking that they’ve understood, then affirming and clarifying their answers if necessary. Charts and graphs of examples, plus tables and code; great use of laser pointer while talking through fairly complex slides. Giving students an idea of the size of the work required in the exercise: 10-12 lines of code, maybe 1 or 2 loops. Good rapport with students, occasional checking in to make sure they understand, comfortable interactions between you and the students throughout.

Things to Consider: I wondered if some of your responses to the mid-module feedback risked putting students on the spot, asking specific students to expand on the suggestions? Response: Yes, comment taken on board. Might it be easier for students to get a handle on the data, and for everyone to talk about it, if the labels are in natural language (rather than
pre, fac, etc.)? Response: Yes, comment taken on board. Would some of this work better if the students were able to try things out as they go along rather than simply listening to the lecture? Response: Yes, this is a two hour session, so in the first hour, part of the lecture was dedicated to mid-term module review, and second part to a lecture. The second hour of the day was entirely dedicated to students working on coding the examples in their notes. You used a few questions that assumed their answers, e.g. Most of you have done ANOVA before, yes? Might be worth rethinking the way you frame those questions to make it easier for the answer to be no. Response: Yes, that is correct, comment taken on board, however most of these students had taken the regression models module which included the ANOVA.

- **General Comments:** The exercise, manually coding in a statistical test, doesn’t seem to be using the material covered in the lecture. Do the students also get a chance to practice the lecture material? Response: The was an extra exercise for students who wanted to preform more algorithmic work relating to the materials they learnt during their previous lectures, see student feedback below.

**Modelling with Matlab (Level 6), Oxford Brookes University**

Observer: Julie Valk  
**Lecturer in Anthropology of Japan**

- **Strengths:** The session had a clear structure which Kayvan outlined at the beginning of the class. It was good to have a summary of the material covered previously (including a task to go over based on material from the previous session). The session had a relaxed atmosphere and Kayvan had a good rapport with the students, steering them towards collaborative problem-solving. Kayvan encouraged students to assist each other in groups and the session made good use of peer-based learning. The session was very interactive, with good use of traditional questioning alongside use of technology such as FLINGA. Not being familiar with this technology myself, it was helpful to see it in use and gave me ideas for my own teaching practice. The session had a good mix of lecturing combined with practical tasks which demonstrated good ability to change pace this helped the students keep focus. One student had not attended the class before, and Kayvan was careful to assist her not just at the beginning of the session but throughout as well as she tackled new tasks. The small number of students and Kayvans attentive approach to each student meant that students could get tailored help for solving problems and tasks.

- **Suggestions:** I suggest giving students a time frame in which to complete their tasks, i.e. indicating that they will have 10 or 15 minutes to complete a task. This should help avoid/limit the occasional lack of focus. Some students had a tendency to dominate the class and tended to quickly answer the questions Kayvan asked. I suggest ensuring that the quieter students get a say as well, and to not always allow the more dominant students to answer the questions. Response: The comments are highly appreciated and taken on board.

5 **Student Feedback**

**Student Feedback - Mid-term Module Review: Statistical Programming (Level 7), Oxford Brookes University**

- **Summary:** In total 5/7 students responded to the survey. Responses were further discussed during the next session and the following is a summary of discussions. In total 4/5 students found this module provided an excellent learning experience, 1/5 was neutral. We had similar results for other questions.
- **Some of the good points raised:** Good introduction to R. Detailed notes, good worked examples. The practical focus of the lectures and all the interesting real-world examples are my favourite part of the module. Learning R.

- **Areas for Improvement and Actions Agreed:** Could explain more about the statistical techniques. **Action:** Some students are studying linear regressions module at the same time as statistical programming, so they will see many statistical techniques. However, and for those who are not taking regression models, I have started including some exercises which focus on statistical techniques. Be more forthcoming with information. **Action:** The main request was to add more resources to the Moodle. The previous years lecture notes and demos are on Moodle. I have also been adding some examples of using R in industry, advanced programming, and software development with R. Could be options for making it harder for people who have used R before. **Action:** For people who are more experience with R, they can use the templates of RMarkdown, RShiny, Web-scraping materials that I have uploaded to Moodle and use these resources to start learning about advanced graphics, software development, and creating interactive and reproducible reports. I am very happy with the module as it is. A possible suggestion may be that we can have more algorithm-based practical tasks instead of using ready-made packages in R. **Action:** I have started including some exercises which focus on statistical techniques which ask you to write your own algorithms in preforming statistical tasks as opposed to using the R’s inbuilt functions.