Queen Mary Education Fellowship Scheme

The Account of Professional Practice
Fellow Applicant – Sample U

General Notes:

1. This APP has been anonymised and has been made available as an example APP with the permission of the author. However, due to the personal nature of the document it is possible that you might recognise the work of a colleague. In this case please treat the document with the necessary confidentiality.

2. This example is considered a good APP and has passed the HEA Fellowship requirements of the UKPSF. However, more specific referencing to the UKPSF dimensions has been required recently, references to the core knowledge and professional values need to be specific and clear. That means, for this APP, there are some points that can be improved upon.

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Evidencing A1: Design and plan learning activities and/or programmes of study

Since joining SBCS at Queen Mary, I have been involved in two complementary aspects of curriculum design.

(1) I have redesigned a module for first year undergraduate students in psychology. This is a compulsory course that is designed to give students knowledge about the brain and biological processes. This was challenging because I had to accommodate two (conflicting) aims. On the one hand, I needed to deliver core material to a large group of students who had never learned the subject matter (biology) before, but on the other hand, I had to also make the course interesting for the smaller group of students who did have a background in biology. Honey and Mumford (1982) identified four different learning styles of students and in order to maximally engage with my students, I incorporated two approaches to teaching in my lectures (although I know that there are (mainly) 4 different learner types, I don't think that its useful to flip back and forth too much between different teaching methods. Students also like consistency). On the one hand, I introduced more dynamic teaching methods by making use of the huge online resources of videos (computer generated animations as well as videos of scientists doing research). Students may find learning about brain cells and neurotransmitters dry, but when they see animations of, for example, cells communicating with each other, the subject material becomes less abstract. I made particular use of this, to cover topics of neuroscience. On the other hand I also applied more traditional approaches of content delivery where students could then reflect at home. Since most students have not had any background in biology, I also used this to make the links between biology and psychology clear. For example, the lecture on mental health requires learning about neural and chemical imbalances (among other things). As it is, this can be quite dry, so I started by giving a historical background to this topic (e.g. mental health used to be treated by lobotomy because people didn't know about chemicals in the brains), and then discussed how learning about chemical imbalances paved the way for novel treatments. I believe that by making the delivery more dynamic, as well as regularly asking students questions, I can keep them more engaged as well as enhance their learning. Indeed, asking questions regularly helps break up the lectures so that students aren't trying to concentrate over a full hour, but also facilitates learning through retrieval practice (Smith & Karpicke, 2013).

(2) I am currently developing a new module for third year students (elective) on neuroscience. The aim of this course is to build up students' confidence by creating a seminar series where they have to present papers and join in discussions. This is the first course of this nature in psychology at Queen Mary but I believe that it will be a success. In this course, students are mainly probed in what Perry (1970) defined as the later stages of development (relativism and commitment). Students have very little experience with public speaking or presenting themselves, yet once they leave university this is what they will be judged on in any job interview. My first aim here is not so much for the students to learn the specific details about neuroscience, but rather for them to learn to (a) critically evaluate science (b) present this in a clear manner and (c) learn how to argue for something. The second aim is for students to learn to critically evaluate science and realize that in science (as in many aspects of adult life), there isn't always a right or wrong answer but that rather knowledge is built on foundations that keep growing.

As such, my teaching (that I have currently done as well as the teaching I will do in my new module) uses the elements of core knowledge, notably (1,2,3 and 6). I have introduced teaching methods that are matched to the course material (and level) delivered. I test the effectiveness of my teaching method, both by regular question asking, online forums and debates as well as practicals done in class. In all cases, I ensure that the students reach the level of understanding that is required. I adhere to the professional values (3-5) for teaching. Queen Mary University is one of the most culturally diverse universities that I have worked in, and I would like to make use of this more. For example, in my lectures on language acquisition, a large proportion of the students in my class are either non-native English speakers or bilinguals. I use that to try to examine the differences in language skills among (English) monolinguals and bilinguals.

Honey and Mumford (1982). Manual of learning styles London.

Smith, M.A. & Karpicke, J.D. (2013). Retrieval practice with short answer, multiple choice and hybrid tests. *Memory*

Perry, W.G. Jr (1970). Forms of intellectual and ethical development in the college years: a scheme.

Evidencing A2: Teach and/or support learning

I teach in four different formats, and encourage a deep approach to learning (1) large classes of undergraduate students taking core modules, (2) small tutorial groups (roughly 8 students), (3) project student supervision. Each category requires slightly different teaching styles and techniques.

(1) In the large classes, I draw on Biggs and Tang (2011) to make sure that the intended learning outcomes are clearly specified, that my material maps onto these and my assessments test them properly. I try to draw students in by asking questions, mixing different delivery methods and stopping to go over material that I know is difficult. Obviously, in large classes getting students to participate can be difficult. Most are too intimidated and it tends to be 1 or 2 students who dominate discussions. I try to get around this problem by asking group questions, rather than trying to single anyone out (e.g. "raise you hands if you think neurons do X"). This is quite effective and builds students confidence; they see that other students were thinking the same things as them. (Core Knowledge 1-5, professional values 1-4)

(2) I enjoy teaching the small tutorial groups more because there is greater scope for interaction and students are more readily encouraged to think (Dennick, R & Exley, K (2004)). This is a one year tutorial and we meet approximately once every 3 weeks. At the beginning of the year, I start the tutorials in a more structured way (e.g. I will discuss how to write a research report) and we discuss as a group how we think it should be done, using one specific example. For example, this year we discussed how we would prepare an essay on social psychology. I made a list of bullet points on the topic (in each section: e.g. Abstract). As the year goes on though, I move to a far more interactive format. For example, most students are not very good at scientific writing (probably 1 or 2 out of 8 know how to write in a manner that is clear and concise), so I break them into 2 groups and I give them (anonymous) examples of paragraphs that have been written poorly and they rewrite them, in their separate groups. We then discuss why they changed what was written, how they decided on a better way of writing, etc… The students have actually enjoyed this a lot and there has been a significant improvement in their writing styles. I believe most students (this goes even for doctoral and postdoctoral researchers) tend to write papers/essay on the assumption that the person reading it knows the topic. My exercise above helped students see how difficult it can be to understand a written text when no context or information is provided with it, and you are not an expert. (Core Knowledge 1-6, professional values 1-4)

(3) Project students. This has also been quite challenging because I had 4 students who needed to do a research project in my field of research, which is more biological and computational than they like. I met with them individually throughout the first semester on a weekly basis and helped them design computer based experiments. Despite a few teething problems (mainly to do with learning to use computers) they all did very well. I think they enjoyed being able to see the experiment take place (they are in the same room as the participant) and the online analysis. I did have to tailor the experiments to each students' capacity (2 of the 4 were weaker and so we worked on projects that were more

psychological than biological), but once I did, they all worked independently, not requiring much help from me at all. (Core Knowledge 1-6, professional values 1-4)

Apart from the larger course that I taught, for both the project students and tutorials I believe in promoting participation in the learning experience and make sure I use teaching methods that are appropriate for the students. This is easy to do in small groups, but more problematic in a larger class. There I make sure the subject material covered aligns with their expectations (listed in the learning outcomes at the start of each lecture). I also promote participation through question asking. Finally, where appropriate, I try to integrate my research into some of my teaching, something that has been suggested to be benefitial (Brew (2006)). For this research led teaching, I do a few different things: (a) I do some simple (psychophysical) experiments on computers using my visual illusions to help students understand what an illusion tells us about the brain, and (b) we do adaptation experiments (e.g. stare at something and then look away, you will see an adaptation aftereffect) to understand what how quickly the brain processes different types of stimuli. Adaptation is actually very well suited to do in large classrooms because it easily works and students are always amazed when they "see" something that isn't actually there. I plan to do these simple experiments in next years classes, and where possible use more than just visual stimuli. Adaptation has also been useful as a tool to compliment teaching about the different stages of visual processing (at the level of the eye, or in the brain).

Biggs, J., & Tang, C (2011). Teaching for quality learning at University. Open University Press, 15-63.

Dennick, R & Exley, K (2004). Small group teaching : tutorials, seminars and beyond.

Brew (2006). Research and teaching: beyond the divide. Palgrave Macmillan.

Evidencing A3: Assess and give feedback to learners

The main type of feedback I use is through the (formal) grading of students' practicals (in the large classes I teach) and of their essays (in the tutorials). In all cases I adhere to the Principles of Queen Mary Code of practice on assessment and feedback.

Feedback for the large course I teach is mainly in written format: the students have 2 practicals that are designed to be "easy" so that they build up confidence to deal with the exam. For the most part, the practicals serve a multi-purpose role: (a) students get their first taste of university "testing", (b) they learn how to write a report and (c), they become more confident about their knowledge and skills. I have learned through my assessments of students that it is useful to not only highlight the problems (if there were any), but to also indicate where (and how) they did something well. The students are told ahead of time what we would like them to discuss in their practicals, and I also provide a handout with all the relevant information. The tutorials' feedback (where they write essays) is also in written format. I tend to give the group an overview of "good" and "bad" practices without pointing anyone out (or necessarily using what they wrote). If students want to discuss their result in more detail, then we can meet separately as to avoid highlighting one person in the group. If someone is clearly struggling, compared to the group, I will meet with them separately and

give tips on how to improve. For all the students that I teach, given that I grade most of their paperwork myself, I can see if they have taken on board my suggestions. This generally only works for the ones who were particularly weak and for whom I laid out some "ground rules" on how to write or prepare an essay. This approach works in in this years' seminar group, most of my students who suffered from writing sentences that were too long (a common problem) had overall, learned to write more concisely. However, Nicol and Macfarlane-Dick (2006) have noted that its not just students who need to adjust to feedback, but that as teachers we need to use feedback to adjust our teaching strategies. Again, with respect to the tutorials, instead of telling the students how to write more concisely, (since I noted the change wasn't happening very quickly in their writing style) I designed writing exercises that we did in the tutorial. (Core Knowledge 2-6, professional values 1-5)

I plan to trial a new assessment method for the neuroscience course I am developing. I would like students to self assess themselves and their peers. My (informal) experience of this is that students are actually very good at evaluating how well they did on a piece of coursework: they know what they were unsure of and what they thought they presented (or wrote) clearly. I believe that this is a highly effective learning method that could avoid students only working for the grade. Students rarely critically evaluate their own work before handing it in. This would give them tips on how to do so, and hopefully get them in the habit of doing it regularly.

Nicol DJ, MacFarlane-Dick D. Formative assessment and self-regulated learning. A model and seven principles of good feedback practice. 2006. Studies of higher Education. 31, 199-218

Evidencing A4: Develop effective learning environments and approaches to student support and guidance

I work in three different types of environment: (1) in conventional lecture theaters, (2) in my office for our tutorial groups and (3) in the lab for the project students.

(1) I have little control over what is available in the lecture theater. For the most part IT works, but this hasn't always been the case. I do make sure that I can access the online videos that I need for the students. However, to ensure that I don't get fully caught out by systems not working, I always bring printouts of the slides for all the students. This is particularly helpful as they can listen/watch me and only add notes for the points that are important (rather than the more conventional method, when I was at university, of simply trying to write as quickly as possible what the teacher was saying without having time to process the information). All of my materials are also available on QMplus and I create forums for the students to ask questions (to myself or others). Students generally prefer using interactive media because it feels modern and less constraining. They can choose to go through the slides at their own pace. (Core Knowledge 1-6, professional values 1-4)

(2-3) I have much more control in my office and lab of the learning environment and I tend to make use of it. For example, in my office I can get students to come type into my computer if we are doing a group project that involves writing out an abstract. Dennick & Exley, 1998 pointed out that one of the many benefits of small group discussions is that the transmission of information occurs in a very interactive format. In addition to getting students to speak (with me or amongst themselves), I have also used my computer to show them demos (my research is on vision, so this works quite well). In the lab, I can get them to learn to use the software and computers. For the ones who are interested in learning more, I let them "play" with programs and software. Generally either myself or a graduate student are around so that if something goes wrong (e.g. they crash a computer), we can quickly fix it and the students see that they aren't going to break things (this seems to be most students' concern). There is an online (free) software package that I will encourage students to use next year. This lets them build experiments (if they are doing projects), or simply look at some of the demos I tell them about. This is easy to use software, so the students can also try their hands at programming also. (Core Knowledge 1-6, professional values 1-4)

Evidencing A5: Engage in continuing professional development in subjects/disciplines and their pedagogy, incorporating research, scholarship and the evaluation of professional practices

I update and develop my teaching capabilities by (1) taking a number of seminars and workshops (from the Learning institute at Queen Mary and at other institutions in London) on teaching methods, (2) joining the recently created "psychology teaching and learning group", (3) hallway discussions about how to best deal with students' learning in areas we know are problematic (biology/project skills) and (4) speaking with people form other institutions (Mainly the Institute of Education in London and University College London) on how they deliver course material and teach project skills. I also take into account student evaluations about the course content and how students progress to guide how I teach.

(1,3-4) These activities have contributed to my (ongoing) preparation of teaching across the varied range I have. The single most important point I have taken from these is to make sure that the students learning outcomes are clearly specified and aligned with what I am teaching. For the most part, I do this by adding slides at the start of each lecture with bullet points of (a) what I will cover and (b) what they will learn. I have also taken student feedback into account in terms of how to better deliver (difficult) material next year. Most students have found certain aspects of the course I teach (brain and behaviour) difficult. By clearly stating what they struggle with (e.g. neural processing) I know to focus my teaching delivery on these concepts next year. I also use the practicals to specifically target the areas they find challenging (either because they tell me so in emails/evaluations or because they do poorly on the questions in exams or choose not to answer them). By getting hands on experience this helps them understand key concepts. For example, this year 5 out of 80 students chose to write their exam essay question about receptive fields. Since this is a key concept that I know students find hard, I will incorporate this in next year's practical, by getting them to do simple measurements on receptive fields (.e.g measure how close two spots of light can be for you to still be able to see both of them). We did this when I was teaching in Australia and the students said it helped them understand the concept. My meetings with people at other institutions have also led me to modify some of my learning methods (e.g. the group interactive component of my tutorials is very popular and has been benefitial to students. This is something I learned from partners at UCL who incorporate it into their tutorials and who have had positive feedback about the method).

(2) Being part of the recently created teaching group is incredibly useful because we generally face the same problems (there are 6 members) but have had different ways of dealing with them. For example, plagiarism. This is something some of the first years don't fully understand, and we realized this as group by discussing some of the problems we encountered regarding it. Instead of thinking the problem was confined to myself I realized that other lecturers faced similar issues. To deal with this, we now cover the topic a few times in different lectures and by different people. I also give my tutees an exercise on plagiarism. I give them a paragraph to rewrite and we discuss after if we think parts are written differently or are too similar. By having it written out for them and going over specific examples, my tutees now understand what constitutes plagiarism. This is a good example of how, by seeing students written reports and getting feedback from them about what they don't understand (e.g. what is plagiarism) I have developed an exercise to guide their learning.