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Creativity interwoven into the fabric of learning, an example from a postgraduate nutritional science module

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Abstract

This paper is a patchwork of reflective accounts linked to the experience of a postgraduate module that was co-designed by a teaching team using creative approaches to learning. The teaching team provides a rationale for the design and approaches used in this module. The reflective accounts of these two students that have been included, should be seen as two cases that provide insights into these students' experience on the module and aided to conduct a preliminary evaluation linked to these and not the whole cohort. Their insights illustrate the impact creative approaches have had on their creative selves and their development as a professional within and beyond a particular module and the fabric of learning and teaching.

Keywords: Creativity, team-teaching, nutritional sciences, reflection, students' voice, science

1. The module and context

The postgraduate module, Nutrition in Practice was created in 2018-19 academic year as part of the MSc in Human Nutrition offered at Manchester Metropolitan University in the United Kingdom to address student feedback about the lack of reality and real life practice in teaching of Nutritional Sciences at Masters level. Nutritional science is facing limitations to its capability

and credibility, impeding its societal value. Penders *et al.* (2017, 3) suggest "The pursuit of a truly capable and credible nutrition science requires *reciprocity* in the articulation of relevance and in communication and *inclusiveness* through inviting other disciplines to become co-creators of the new nutrition science". This makes it imperative to act and re-shape the curriculum and how it is taught in Nutritional Sciences programmes to remain current and future facing.

Many students deciding to enrol on a postgraduate programme in Nutritional Science might not necessarily have nutrition as their first degree. Therefore, providing them with real practitioners and real practice in tackling and solving nutritional issues such as social eating, poverty, mobility, meaning of food is not only essential to provide authentic insights into the field, but also provides them with future creative ideas on various routes to employability beyond more traditional paths and becoming professionals who are willing and able to learn, adapt in rapid change environments, be resourceful and creative. The module was team-taught by two academics, a nutritional scientist and an academic developer.

Using genuine creativity interwoven into the learning process, student collaboration and technology to deal with nutritional issues and the opportunities these present in different institutions, organisations and professional areas was the real motivation behind the design and delivery of this unit. We wanted our students to question, use their curiosity and imagination, make novel connections and come up with fresh solutions to existing problems (Jackson, 1996). We felt that it was important to link textbook theory to authentic professional practice. We invited guest speakers to our sessions and used creativity, play and affect, such as LEGO® SERIOUS PLAY®, making and storytelling for example. These interventions helped our students to immerse into the learning process and demonstrate that nutrition is a holistic science and in order to be effective they need to think beyond nutrition and what is provided on a plate and deal with the human element, in a cross-disciplinary context, using experimentation as well as evidence based guidelines, research and sector recommendations.

For the teaching team, it was important, to help students to learn the art and science of meal planning and preparation, to understand how to manage meals and menu development for health and wellbeing in a range of contexts and situations in different settings with varied requirements. We did this through immersive, hands-on playful experiences and experimentation, which play a key role in generating novel ideas (Brown, 2009; Thomas & Seely Brown, 2011). To be brave and dare to try. To make mistakes

and learn from them. But also enjoy learning and discovery. James and Brookfield (2014, 65) suggest that “when playful enjoyment can aid in the grasp of difficult content, open learners to multiple, complex interpretations, and help them think more critically.” The teaching team wanted to put this to the test. We noticed that students extended their critical understanding of social, cultural and economic factors affecting individual and collective food consumption habits throughout the module and the projects they undertook based on their own interests. Our teaching focused upon inspiring our students to become creative professionals in a fast changing field, to learn about holistic management of food and ingredient variety, reflection of the seasonal availability of food, cultural diversity, safe food production and awareness of emotional and social variables and also raise awareness and responsibility linked to sustainability more widely.

The teaching team invited two students from the first iteration of Nutrition in Practice to respond to the following:

- Motivations for joining this programme
- Why Manchester?
- Your experience on the NIP unit. What did you notice on the NIP module? What were the characteristics of this unit for you? What was important and why?
- What did the unit enable? Change for you? Add some concrete evidence for this.
- Your future as a result of this unit.

What follows are the students' authentic narrative voices presented as patches. These patches aim to link memories, experiences and stories (Barrett Ferrier, 2007) related to a particular module and help the teaching team to stitch the patchwork together that forms the fabric of learning and provides insights into how reality has been experienced in different ways (Lather, 1997).

2. To answer my burning questions by Student 1

During my second year as a Neuroscience student I decided that I was very much interested in the role and

power of food on the brain and body. I realised that the link between Nutrition and Neuroscience was massively under-explored and required special attention, due to the fact that our nation was becoming more disease-prone due to our diet choices. To answer my burning questions, I decided to combine my BSc in Neuroscience with an MSc in Nutrition, which would then allow me to work in the field of research dedicated to both fields.

As I had already completed my BSc in Manchester, I decided to continue my studies there. The city oozes a certain vibrancy that is incomparable to any other I have lived in. I opted for a programme that dedicated as much time to independent research, as it did to teaching. A programme diverse enough to provide me with the foundation I needed in order to comfortably follow a range of career paths. Manchester provided me with a favourable balance at university so that I could dedicate enough time to both academic and non-academic activities.

Throughout the programme, specific modules equipped me with the skills needed for my future plans. One specific unit, "Nutrition in Practice" (NIP) provided me with both a high level of knowledge on nutrition in different environments, as well as granted me the opportunity to place more kinaesthetic skills into practice. In our weekly sessions, speakers would introduce us to their world and how nutrition played the biggest part. The depth and detail of the sessions was then complemented with a skills set, which allowed us to reach into the cupboards and refrigerators to cook meals centred around specific themes provided by these guest speakers. These themes spanned from prisons to schools to senior homes. The diversity in meal preparations provided us with a certain responsibility and challenge in comprehending the necessary nutritional requirements for a specific type of audience.

As the youngest on the programme, I felt honoured to be able to show my abilities and knowledge when it came to preparing meals that were both nutritionally packed and sustainable. I believe that providing an extremely well-rounded unit such as NIP grants students the opportunity to really come to terms with nutrition outside the classroom. Furthermore, it gives

future nutritionists a sense of the difficulties in providing nutritionally balanced meals for a range of malnourished individuals. Finally, it provides a certain scope in terms of future plans and practices.

Upon completion of the unit and the MSc programme, I realised that I have an immense passion for writing and publishing. It was through the assignments at university and the challenges the world of nutrition faces, that has allowed me to discover that I want to use my academic experience to help others understand the importance of nutrition and neuroscientific research for the benefit of human health. Composing pieces of literature, propagating scientific knowledge is what I have wanted to do from the beginning, and what I hope to be remembered for.

3. The freedom of creating... by Student 2

Starting Nutrition in Practice back in February 2019, I could not imagine all the knowledge and experience I would gain just a few weeks later. As many of our modules, it was divided in lectures and laboratory practical on a weekly basis. However, there was much more than that.

To begin with, what first drew my attention were the real-life scenarios which comprised the main body of Nutrition in Practice. Studying for nutrition and sustainability in schools, care homes, army, prisons and hospital settings made the actual module content very interesting to me, to which also contributed the great structure of the unit.

To be more specific, the lectures were understandable, clear and up to date. As a result, the provided supporting material lied on the current evidence base for each real-world problem with no exceptions and the depth of information was just right. Needless to say, one of the most engaging moments during the lectures was when each week guest speakers would come to give a presentation on their area of specialization. This totally broadened my knowledge on the food and nutrition industry not only in Manchester but in rest of the UK as well.

As far as the practical aspect of Nutrition in Practice is concerned, personally it did not feel like being in a university's laboratory, as the freedom of creating

meals of our choice, taking initiatives and acting like we were in our own kitchen was quite innovative for me. Furthermore, working with my team was a great opportunity of mutual help as well as negotiation on any different aspects we had on recipe making as we showed nothing less than respect in each other's opinions. At the end of the practical, not only had we the chance to taste our fellow students' delicious meals and desserts but also the most voted meal was rewarded with bestselling books on nutrition for our hard work, which made our experience there even better!

Having the freedom to be as much creative as I could during my postgraduate programme especially with projects and cooking sessions was one of the programme's elements that helped me understand completely every task I took over. Through muscle memory and experimentation in every hands-on practical, I was and still am able to memorise everything I did and learn more as we shared ideas with my fellow students, which definitely helped me expand my learning skills by giving attention to minor details.

Finally, Nutrition in Practice lecturers could not be others than AUTHOR2 and AUTHOR1. They were both so friendly and approachable from day 1 that it actually felt like I knew them for a really long time! AUTHOR2 is an enthusiastic individual, who enjoys teaching, embraces her passion for nutrition every single moment and effortlessly transmits this passion to all of us. She loves interacting with her students in all ways, always staying professional which seems quite an achievement to me. Both lecturers' style of teaching made Nutrition in Practice an exceptional environment for learning, socialising and growing as individuals and professionals.

Personally, with Nutrition and Practice I have gained crucial tools for my future career as a nutritionist. I learnt to be as open, creative and fearless as I can, which was very helpful for me as an international student. The module as a whole was very well delivered which makes it a worthwhile learning experience. The only negative fact is that previous students did not have the chance to attend this playful part of their postgraduate studies.

4. What the teaching team has learnt

Injecting creativity, imagination and hands-on experimentation interwoven with cognitive tasks into the fabric of learning in this postgraduate module in Nutritional Sciences by design, seemed to have a positive impact on the two student cases on this module as their reflections suggests. They both valued the opportunity to engage in authentic learning and having the freedom to explore and discover their own interests and aspirations in the field of nutritional sciences and their way to become professionals and seek employment opportunities but also grow as individuals and learn to appreciate the power of creativity for their personal development. They talk about "becoming fearless" which was enabled through the relationships with the tutors on this module and their peers and how this is empowering for their thinking and actions. Students' creative selves seem to have had the opportunity to develop and grow during the module and there is evidence in their reflections that may indicate transformation that may have a lasting impact on them as individuals and professionals.

The teaching team is pleased that the two students felt the creative approaches used and designed into this module had a positive impact on their development and growth as creative practitioners and professionals. They took a risk that paid off. Now they have plans to continue evaluating the module and capture the experiences of a whole cohort of students when it is offered again. This will help them come to more conclusive findings that will inform future iterations of this module but also provide food for thought to other Nutrition practitioners as well as practitioners in other disciplines to consider more creative approaches to spice up learning and teaching and transform learning into something that is exciting, stimulating and empowering for students and staff. The first indications as illustrated in this paper through the reflections that have been shared, are encouraging and the teaching team is committed to continue injecting creativity for creative learning in their team-taught module.

5. Disclosure statement

The author(s) declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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