# Blended Learning in Practice
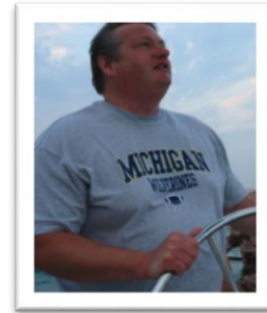
Winter 2018

## Contents

## Editorial

Welcome to the Winter 2018 edition of our e-journal Blended Learning in Practice. In this edition we have three research articles from participants on the Post Graduate Certificate in Learning and Teaching in Higher Education (PGCertHE) programme.

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**Within this edition:**

**Louise Codd** from the University of Hertfordshire's School of Health and Social Care**,** explores the educational pedagogy of academic feedback. She reflects on how students engage with it, and questions whether giving students a choice in how they receive feedback, through a written or audio format, can enhance their educational experience. Louise considers student experiences of feedback and the possibilities of health care students ultimately being able to assimilate positive models of feedback into their own future clinical and leadership roles. Louise also posits whether improvements in student engagement from alternative feedback modalities will be reflected in student satisfaction and ultimately academic attainment.

**Karen Sumpter** from the Adult Nursing team at the University of Hertfordshire, reviews the current simulation provision for final year under-graduate student nurses at the University of Hertfordshire. Karen considers which learning styles and methodologies may be the most appropriate and effective. She makes recommendations that would enable lecturing teams to more effectively evaluate the learning gained from simulation activities.

**Alexandra Buckland-Stubbs** from the Department of Geography, Environment and Agriculture at the University of Hertfordshire explores the use of problem-based learning (PBL). She investigates the utility of PBL by reviewing existing education and discipline specific literature and by studying geography student reflections of a PBL migration management activity. The aim is to determine whether PBL applications are beneficial to student learning and development and to determine whether PBL applications such as a migration management case study are suitable for continued use within the undergraduate geography degree programme at the University of Hertfordshire.

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Louise joined the Radiotherapy and Oncology team at the University of Hertfordshire (UH) as a part time lecturer in January 2016. She works clinically as an advanced practitioner Therapeutic Radiographer at Mount Vernon Cancer Centre, having gained her undergraduate degree from UH in 2007. Louise has a degree in Psychology and an MSc in Clinical Oncology from the University of Birmingham, with her principal areas of clinical interest and teaching in radiobiology and technical advancements within Radiotherapy.
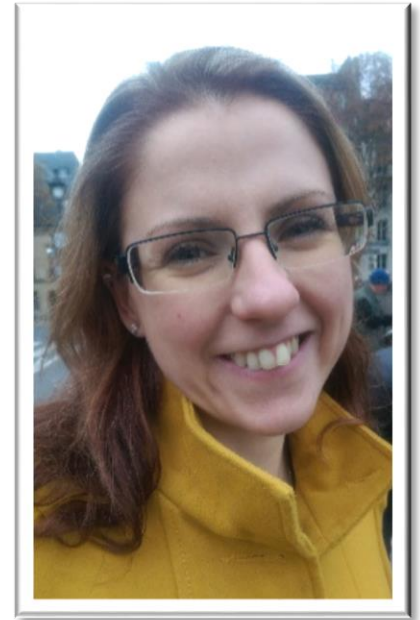
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Karen Sumpter is a Senior Lecturer in the Adult Nursing team at the University of Hertfordshire. Karen has been a Registered Nurse for 30 years. The early part of her career was spent in the NHS, specialising in ENT and Head & Neck nursing, gaining management experience up to Directorate Lead Nurse level. Karen then moved to the voluntary sector and held a senior post in a hospice for 10 years with responsibility for staff management, service development and end of life education. During this time, she gained a Master's Degree in Management and Leadership. Prior to commencing her current post, Karen worked as Head of Clinical Services for a national cancer charity. Karen's interests include communication skills, team working, and end of life care.

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Alexandra Buckland-Stubbs is a PhD Candidate and Visiting Lecturer in the Geography, Environment and Agriculture Department in the School of Life and Medical Sciences at the University of Hertfordshire. She teaches at undergraduate level on a range of topics within human geography including migration, cartography, residential mobility and ethnicity in urban spaces. Her research interests are primarily focused on migration and migrant experiences and her PhD research is an interpretative phenomenological analysis of the housing experiences and future aspirations of Polish migrants in the UK.
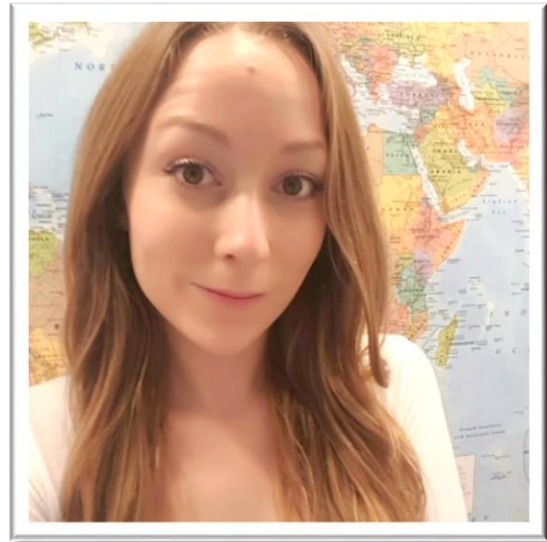
Additionally, Alexandra is a Postgraduate Fellow of the Royal Geographical Society, as well as a member of the LSE British Society for Population Studies, the American Association of Geographers and the UH Teacher Training Society. She has also recently become a Fellow of the Higher Education Academy (FHEA) after completing a Postgraduate Certificate in Learning and Teaching in Higher Education (PGCLTHE) at the University of Hertfordshire.

# 'Tell it to me straight' - Can giving students a choice between audio and written feedback enhance the student experience in Radiotherapy Higher Education?

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## Abstract

Feedback is an intrinsic part of the student experience within higher education, which if communicated effectively can allow students to see where they need to improve and formulate practical ways to enhance their academic performance on future assignments. Various methods within educational pedagogy have attempted to investigate the optimal way for delivering feedback, and to try and elucidate how students perceive and use feedback from their lecturers. What is evident from student satisfaction data within the National Student Survey (NSS), is that feedback is an area which is consistently rated as inadequate by students.

This work reviews the educational pedagogy of academic feedback reflecting on how students engage with it, and questions whether giving students a choice in how they receive feedback, through a written or audio format, can enhance their educational experience. The need to develop positive feedback interactions, and the recognition that providing guidance on assignments can be tied up with a host of emotional connotations, is explored through the potential provision of audio feedback. Positive feedback experiences are theorised to be crucial for developing rapport between students and lecturers. This is possibly even more vital within health programmes, (in this instance Radiotherapy) in recognition of the need to equip students as future clinical leaders of the National Health Service (NHS); being able to give and receive effective feedback to drive improvements in care.

***Key words: feedback, student experience, Radiotherapy education, audio feedback, inclusivity***

## Introduction

Feedback is integral to a student's educational development, frequently cited as perhaps the most important factor in progression (Carless 2006, Lunt and Curran 2010, Gibbs and Simpson 2004, Pereira et al 2016). When delivered effectively it can enable students to not only develop judgement skills over their own work (Bould & Molloy 2013) but may be

responsible for the biggest progressions in learning (Higgins 2000). The optimal mechanisms to help students utilise and implement feedback remain unclear, possibly as student preferences are varied (Pitt and Norton 2017), and different students will have different strategies for learning. There is a wealth of research investigating the modalities of feedback delivery. The purposes, and worth of feedback as a means of impacting future attainment, and the perhaps less tangible benefits of enhancing a student's scholarly experience through a rewarding set of interactions with lecturers are all areas for consideration. By reflecting critically on current feedback methods employed on a modular level in the Radiotherapy and Oncology BSc programme, in conjunction with current pedagogical evidence in this area, it is envisaged that changes can be made to facilitate a more purposeful and student-centred feedback exchange.

Anecdotally, I have heard students say that they didn't understand comments made on their work; that they weren't really given any feedback or that they were confused by how to apply the comments to future work. This is borne out in the literature where the language of feedback appears to have its own secret discourse which feels incomprehensible for many students (Carless 2006). Often, despite our best intentions the written guidance is not perceived by students as being beneficial for future assignments (Dowden et al 2013). This 'academic speak' may be further compounded by the profession specific lexicon which is applicable in many disciplines, certainly in the sphere of Radiotherapy.

This calls into question the purpose of feedback as a tool in Higher Education (HE). As previously indicated, feedback is possibly the most influential factor in learning (Lunt & Carmen 2010, Higgs 2000). Having long been identified as a governing principle in effective higher education (Chickering & Gamson 1987), where timely feedback and rapport between students and lecturers is crucial. This is logical when developmental theories of learning are considered in the HE context, such as social learning theory (Bandura 1977). We all need guidance from interaction, or observation of others to be able to learn physical, emotional and social skills. Therefore, it would appear plausible that progression in the higher-level skills we strive to develop in our students, such as critical thinking and analysis, requires meaningful feedback via a method the student can identify with. The purpose of feedback from the lecturer's perspective is also worth considering in the context of the institution and wider educational environment, could it be argued that feedback becomes another task to be completed? echoed as an 'academic ritual' (Marriot & Teoh 2012). The methods of assessment and feedback will almost always be a culmination of a teacher's personal pedagogical preferences, influenced by the drivers of the institution and wider educational context, interfacing with the students' own requirements for learning (Bailey & Gamer 2010). To this end, Zimbardi et al 2016 suggests that there are bigger questions to consider with how students interact with the feedback being given, and that higher education professionals may have their intentions incorrectly aligned. Criticism for exploring modalities of feedback provision assert that we should be asking how the student is going to use the feedback, rather than fixating on how the feedback is provided. Arguably active

engagement with feedback is important, and lecturers can guide students in the application and language of feedback to better their future assignments, however providing choice over feedback method may also be useful within that framework.

## Student satisfaction data

The UK wide picture from the National Student Survey (NSS) consistently identifies feedback as the area most students are dissatisfied with (Marriot & Teoh 2012, Fawcett & Oldfield 2016, Lunt & Curran 2010). Nationally, just 74% agree that helpful comments have been provided on their work, when overall satisfaction with the quality delivered on their course is relatively high at 84% (Hefce 2017, NSS) a message delivered consistently in previous years' data (Hefce 2016, 2015, 2014). As the economic landscape of HE shifts with the introduction of fees, including previously NHS funded courses in some allied health professions such as Radiotherapy, students can be viewed as consumers (Bunce, Baird and Jones 2017). As such, requests for change need to be responded to on a more commercial footing. When reflecting on the Radiotherapy programme level response at the University of Hertfordshire (UH), 83% of our students felt they received viable feedback versus a 90% overall programme satisfaction (NSS 2017 HESA), indicating there is scope for improvement. The potential for large gains in terms of both academic achievement (Gibbs & Simpson 2004), coupled with building supportive relationships with students through effective feedback methods, is an area worthy of deeper consideration.

Moving from the current picture of student dissatisfaction, it can be questioned whether offering students a range of feedback methods and an individual choice may be beneficial. From the pedagogical literature already established in this area, several questions emerge. Firstly, what are the alternatives to written feedback, and how are they beneficial? Could there be enhancements to the student experience by simply being given some choice over how feedback is received? And would this allow for a more inclusive pedagogical approach, with enhanced rapport between students and lecturers? Three key themes are explored in an attempt to answer these questions; the value of audio feedback as a modality, the emotional context of feedback and the discipline specific advantages in modifying the method of feedback delivery.

## Discussion

### To read or to listen?

Exploring alternative feedback modalities is clearly of interest to many of those working in higher education. The advent of technology has allowed for feedback to be conceived on a

variety of platforms such as audio files (Chew 2014), video files (Henderson and Phillips 2015, Crook et al 2011) and screen casts (Thompson and Lee 2012). Linking to the aforementioned difficulties associated with the language of academic feedback, it would appear logical that alternatives such as audio recordings may circumnavigate this issue, allowing for clarity in students understanding (Jackson 2012). Indeed, studies of audio feedback indicate that lecturers provide a greater number of words for audio feedback in comparison to written forms (Fawcett & Oldfield 2016), although this increased word count did not translate in to an improvement in student attainment (Chalmers et al 2012). A mean 8 times more words were produced in some studies using audio feedback compared to their written counterparts (Zimbardi et al 2016), but it is questioned whether the number of words is as important as the quality of what is being said, with the prevalence for more 'filler' words to be used in audio recordings (Laughton 2013). Despite this, audio feedback appears to be welcomed positively by students in comparison to written feedback (Knauf 2016, Laughton 2013).

An increase in student engagement with collecting feedback is evidenced from 5% collection rates for written feedback increasing to 50% for audio files (Lunt & Curran 2010), and perhaps more importantly spending longer periods actively using files (Zimbardi et al 2017). This reiterates the idea that active engagement is the critical element with students absorbing feedback. This positive perception of audio feedback by students is not only seen at undergraduate level but mirrored with postgraduate students too (Parkes & Fletcher 2017), who it could be argued are more engendered to the language and nuances of academic feedback, so should have less issues with utilising comments. Some qualitative studies speak of the greater detail being the difference that helps students connect with audio feedback. Within the additional word count seen in audio feedback, when sorted by theme, it indicates the extra words are commonly used within the areas of explaining misunderstandings and giving praise (Chalmers et al 2014), which could be considered favourable by students.

Criticisms of audio recordings include the potential for some students to struggle to access large audio files, and the potential reticence of lecturers to embrace unfamiliar technology (Parkes & Fletcher 2017), even though providing audio feedback is evidenced to be quicker for lecturers than producing written feedback (Lunt & Curran 2010). A counter argument to this is the potential for audio technology to transcend learning disabilities in visual processing, such as dyslexia or with vision loss. However, the flipside of this is that audio feedback may be detrimental to students with a hearing impairment (Parkes & Fletcher 2017), potentially negating the positive aspects for some student groups.

If audio files are good, could video feedback be even better? There is some indication that video is perceived even more favourably by students than audio methods for feedback (McCarthy 2015), possibly due to the multitude of non-verbal cues available when we can both see and hear someone. Whilst some argue the informal nature of video and audio

recordings are where the benefit lies (Jackson 2012), it could also be considered as detrimental. Evidence indicates students may not recognise these methods as being 'official', whereas written information indicates a more authoritative message (McCarthy 2015). It may also be that some lecturers would understandably feel uncomfortably exposed if they were filmed providing feedback, so again discussion with lecturers on how to make best use of these technologies and building confidence with technology may help support their use.

## The emotional minefield of feedback

This idea of increased personal exposure on the part of the lecturer links to the theme of emotion and rapport within feedback. Much of the qualitative data from comparisons of audio and visual feedback talks of student perceptions of enhanced levels of personalisation (Knauf 2016, McCarthey 2015, Ice 2010, Jackson 2012, Gould and Day 2013). This resonates on an even deeper level with students, feeling that more effort was required by lecturers to produce an audio file than a written response (Knauf 2016, Ice 2007). This infers students felt more explicitly valued when audio feedback was given, again this may be a question of language where fuller responses seen in audio feedback communicate a greater degree of interest on the part of the lecturer to the student. This is reflected with the inference that poorly worded written feedback can make students feel inconsequential to staff (Lizzio and Wilson 2008).

The emotional component of how students view feedback cannot be underestimated (Evans and Waring 2011, Bould and Molloy 2013), with significant feelings of self-worth invested in academic work. Carless 2006 mirrors this by arguing that written assignments are inherently individual efforts, and as such are deeply personal for students. Students report feelings of anxiety around the time of assignment submission, and again in anticipation of feedback (Shields 2015). As with many experiences in life, a history of negative feelings around previous episodes of receiving feedback can be detrimental to future learning (Dowden 2013), potentially causing students to disengage from feedback as a means of protecting their self-esteem (Shields 2015). The massification of Higher Education (HE) means students enter university from a variety of learning backgrounds, and with a variety of preferences in learning styles (Smit 2012, Knauf 2016), suggesting methods of feedback also need to diversify. With half of students reported to now be the first in their families to enter Higher Education (Times, Oct 2017), they may not have any direct models of what university is like and can feel unprepared for the demands of HE (Hunt et al 2017). This again highlights the need to be mindful of the emotional implications of academic critique for students who may already feel 'out of place' in the HE environment. Therefore, if feedback is primarily intended to function as a means of allowing students to 'feed forward' to future work, then it should not be something which they are fearful of receiving. Potentially the use of audio feedback as a more personalised method of delivering constructive criticism, can respond to these diverse needs (Jackson 2012, Bailey & Garner 2012).

It could be argued that the emotional impact of critical feedback is 'softened' when audibly processed, as changes in pitch and tone ameliorate the risk of interpreting written criticism as overly harsh (Fawcett & Oldfield 2016). However, this cannot be misconstrued as the need to 'sugar coat' necessary feedback, it is about considering how comments can be internalised by students and utilising different feedback methods to accommodate that. Proponents of responsive pedagogy argue that part of a teacher's role is to help students believe in their skills (Smith et al 2016) and feedback could be an important way to enhance these additional life skills for the jobs of the future, a by-product of being within HE besides knowledge acquisition. It speaks more to equipping students with the tools to recognise and act on feedback in a positive manner. Beaumont, O'Doherty and Shannon 2011 talk about a 'continuous dialogue' around assessment. This echoes the previous point that feedback should be more than a task to be completed and passively accepted by students but should be a perpetual evolution of a student's skills, reinforced by positive interactions with teaching staff. This links to the question of whether student choice could be beneficial within assessment feedback.

Evidence suggests providing students with choice can increase motivation but with the caveat that it must be relevant to the student, hold meaning and be offered in appropriate amounts (Evans & Boucher 2015). This infers authenticity is key, the choice cannot be a token gesture from the lecturer which has no impact for the learner. In line with student centred constructivist models of education which sees learning as a process influenced by the individuals experiences (Biggs 1979, 2003, Bada 2015) and as an extension of understanding social practices (Higgins, Hartley and Skelton 2002), giving student's greater agency over their learning and assessment can improve their receptiveness to feedback (Harrison et al 2016). Therefore, if students were given autonomy over feedback methods by simply having the ability to make a choice, it could lead to increased engagement and ultimately improvements in their academic skills (Zimbardi et al 2017), alongside the ability to learn more fully from feedback (Harrison et al 2016).

## Inclusivity and modelling professional attributes through feedback

The inclusive nature of audio feedback also has the potential to align with the discipline specific nature of Radiotherapy practice. Patients within the NHS are an inherently diverse population and we encourage students to actively embody the NHS values within their placements, that every patient counts, and all patients deserve to be treated with respect and dignity (NHS constitution 2011). It therefore seems appropriate that we should mirror this belief system in our teaching methods, including respecting students as individuals. Audio feedback has been shown to be beneficial in diverse student groups such as those studying via online distance courses (Ice 2007) and international students (Chew 2014). Designing feedback and assessment with multiple methods for engagement with students is also recommended for those with learning disabilities such as dyslexia or conditions like Asperger's or ADHD (Griful-Freixenet et al 2017).

Once qualified, Therapeutic Radiographers are regularly expected to give feedback to students and provide mentorship. In accordance with Blooms taxonomy (Bloom 1956), if we can help students to understand feedback they will hopefully be able to develop through the hierarchy of learning to be able to apply and synthesise effective feedback methods within their own professional practice. If we set the foundations within their university education of what effective and inclusive feedback feels like, it is imaginable that we can hope to see these skills modelled after qualification. This is further supported by evidence from medical student education that if students are taught to be receptive to feedback at an undergraduate level, that this can translate to enhanced patient safety (Harrison et al 2016). Similarly to medicine, being open to others disagreeing with you and being able to justify your clinical decisions is an inherent part of being a Therapeutic Radiographer (HCPC standards of proficiency 2013). This also ties in to the wider drive within the NHS to facilitate clinical staff in developing leadership skills to "drive transformational change" (NHS leadership review 2015), with the ability to give and receive feedback crucial to this process. This is further echoed by the Society of Radiographers who produced a framework for professional leadership in recognition of the vital role Therapeutic Radiographers can play at a senior clinical level, to "lead people through transformational change to develop and deliver better local services" (Society of Radiographers 2005).

## Conclusion

Assessment and feedback are aspects of teaching where the scope for enhancing the student experience are immense. By offering students choice in how they receive feedback, coupled with the potential benefits for enhancing inclusivity and building rapport via audio feedback, it would appear to be an area of teaching practice which is primed for innovation. By facilitating a deeper construction of knowledge, students can learn to better judge their own work and be able to apply feedback to future work. Whilst this is a worthy vision for all students within Higher Education, it is of particular relevance to the training of Therapeutic Radiographers. Being able to assimilate positive models of feedback into their own clinical and leadership roles, will enable them to be effective agents for change within the NHS.

In practice, further research is necessary to elucidate whether improvements in student engagement from alternative feedback modalities are reflected in student satisfaction and ultimately academic attainment.

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## SIMULATION IN FINAL YEAR NURSE EDUCATION: Developing confidence in communication skills for clinical practice.

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## Abstract:

Simulation activities are now widely used in under-graduate nurse education. Following the Mid Staffordshire Hospitals public inquiry and publication of the Francis Report (2012), ensuring effective communication skills for nurses has become paramount to ensuring high quality patient care.  This article aims to review the current simulation provision for final year under-graduate student nurses at the University of Hertfordshire. It will consider which learning styles and methodologies may be the most appropriate or effective for this style of education. Relevant literature will be explored in relation to alternative ideas or approaches when using simulation as a teaching method. This will be linked to potential benefits of simulation for all students, considering which roles they may feel most comfortable within this environment, and how to identify the learning from each simulation exercise. To conclude, recommendations will be made in relation to how to develop the current model of simulation activities, and how these changes will enable students to develop confidence in communication prior to their final placements as student nurses.

## Introduction:

Simulation is a technique often used in clinical education to recreate a situation in practice, using clinical scenarios to enable students to learn (Fry, et al, 2015; Lavoie and Clarke, 2017). It can be like role-play, in that students are often placed in situation where they must act out what they would do if this was a real-life situation in practice (Hughes and Quinn, 2013), and can be described as a "doing" learning activity (Hope et al, 2010).

Undergraduate adult nursing students undertake a final practice module in their third year. During this module they have taught lectures and seminars on management and leadership related topics to help them prepare for their final practice placement. This preparation is very important, as in this placement students need to achieve their final essential skills to be passed as competent to join the Nursing and Midwifery Council as a Registered Nurse. As part of the module they have one timetabled simulation session, during which they work in small groups to play out a clinical situation where they manage a group of patients, dealing with a junior doctor, a difficult bed manager, and an angry patient whose admission is

delayed. The aim of the session is to get the students to think about how they would manage the situation, prioritise workload and delegate to others, whilst demonstrating effective communication skills. The lecturers choose the content of the session, and orchestrate the session, taking on roles of patients, doctor, and bed manager. All students are made to participate in the session in the role of student nurse, and they attend these sessions in uniform. At the end of the session students have a short amount of time to share how they felt in the situation; usually this is done with anecdotal comments, rather than using any kind of structured debriefing or feedback model.

There is no doubt that communication skills underpin all aspects of nursing practice (Gault et al, 2017; NMC, 2015) and have relevance when teaching management and leadership skills to final year students. In a study carried out by Bramley and Matiti (2014), which looked at patients' experiences of compassion whilst being cared for by nurses, one patient commented "I won't emphasize enough for communication all the way down the line, between doctors, nurses and patients" (Bramley and Matiti, 2014).

This article aims to explore the literature in relation to simulation practice: should students set the scenario for simulation exercises; should students participate in playing all roles within the simulation exercise; and should a structured debriefing model be used for reflection after simulation exercises? By exploring these questions, the author aims to establish whether such changes would improve confidence in communication skills amongst final year student nurses.

## Background and Context:

Simulation can be described as a form of experiential learning and often uses a problem-solving approach (Fry, et al, 2015, pp411). Kolb's (1984, cited in Fry, et al, 2015) learning theories suggest that experiential learning should be a continuous process, with students learning from what they have experienced in practice, as well as that of in a classroom setting. Honey and Mumford (1986, cited in Fry, et al, 2015) further developed Kolb's work by creating a styles inventory. This inventory includes: divergent learners, who learn best by reflecting on experience; assimilation learners who like to develop theories from their observations; convergent learners who prefer to put learned theories into practice; and accommodating learners who are open to new experiences through learning (Honey and Mumford, 1986). It could be suggested that simulation activities appeal most to accommodating learners as the activities are action focussed. However, divergent learners are likely to be of benefit during simulation scenarios, particularly as observers of activities, providing useful feedback whilst reflecting on what they have observed. A study carried out by Tutticci et al (2016) found that high fidelity simulation was valued by all third-year student nurses regardless of their preferred learning style. However, it did suggest that students who prefer an active style of education embrace simulation activities more readily

(Tutticci, et al, 2016). Similarly, a study carried out by Shinnick & Woo (2014), reviewed students' learning styles using Kolb's inventory to check learning preferences; and then assess each student's knowledge following simulation activities. It also found patient simulation learning activities to be effective across all four learning styles (Shinnick & Woo, 2014).

The Francis Report (2012), which was published following the public inquiry into serious deficiencies in nursing care at the Mid Staffordshire Hospitals NHS Trust, recommended that all nurses should possess leadership skills, alongside a caring and compassionate attitude to patients and their families (Bradshaw, 2017). Good communication is a key element to effective leadership (Adair, 2011), and an essential requirement in the development of therapeutic relationships with patients (NHS England, 2012). Other key inquiries since the Mid Staffordshire investigation, such as the Winterbourne Care Home review, have also acknowledged communication as a key area of downfall in poor or deficient patient care (Department of Health, 2012).

The Willis Commission were commissioned by the Royal College of Nursing to undertake a review of pre-registration nurse education following the recommendations in relation to nurse education from the Francis Report (2012). Whilst this report was not critical of the current nurse education model, it did conclude that the nurses of the future will need to have more robust leadership and communication skills, with a greater emphasis on patient safety and dignity (Willis Commission, 2012).

The Nursing and Midwifery Council (NMC) are responsible not only for the monitoring and registration of all graduate nurses, but also for the development of Standards for Nurse Education that each university delivering under-graduate nurse education should abide by (NMC, 2018).  Following the Willis Commission Report (2012), the NMC were tasked to review the standards of nurse education to reflect recommendations from the Francis Report (2012).  The final version of the new standards for education is yet to be launched (but expected later this year); however, within the draft document which went out to consultation to every NMC registrant it is suggested that students would learn using a range of methods, including simulation-based learning (NMC, 2017, R3.5). This indicates that using simulation as a method of teaching to enhance learning in nurse education is likely to continue.

## Literature Review:

A literature search was conducted, using keywords *simulation; student; nurse; communication; debriefing.* A total of 45 abstracts were read, and from these seven articles were reviewed in depth. All the studies chosen were related to research carried out to review learning during simulation exercises or more generally in nurse education: five of the

studies were within nursing practice, with two studies relating to research in the field of medical student education. The author felt it would give a greater depth to the learning by seeking to explore some studies outside of nurse education, as well as those within it. However, owing to the specific nature of the topic, it felt appropriate to use research that related to a clinical environment. Three of the nursing studies were carried out in the United Kingdom (UK), one from Australia, and one from Israel. The two medical education studies were both carried out in the United States of America (US).

What importance do communication skills play within nurse education? Following the publication of the Compassion in Practice document, which included the Chief Nursing Officer for England's six C's model for effective nursing (NHS England, 2012), communication became a high priority. A study carried out by Felton and Royal (2015) found that nurse leaders and nurse educationalists placed effective communication skills and effective listening as key clinical skills that should influence nurse education. However, whilst concluding that communication skills should take high priority when considering curriculum development for nurse education, it did not make any recommendations as to how these skills might be taught to students in the university setting.

An Australian case-study carried out by Warland in 2010 took an approach with final year nursing students, whereby the students played all the roles within a simulation exercise. The session lasted for several hours and students took turns to play patient and nurse roles in different scenarios, with clear cue cards to help them "play out" the role they were allocated to. Following each exercise, students were asked to participate in a debrief session, using a reflective approach to consider what worked well, and what they would do differently (Warland, 2010). After the simulation exercise, the students were asked to complete a questionnaire on their experiences, and after analysis, the results demonstrated that learning in this way had a positive impact on future clinical placements (Warland, 2010).

Similarly, a UK study within paediatric nurse education used a student focused approach to simulation (Valler-Jones, 2014). This study added several additional elements to the student simulation exercise: a) the students were able to choose the simulation scenario themselves, and b) the students had to undertake a peer-review exercise at the end of the session. The exercises were video-recorded, and the students played back the scenarios and made comments using a debriefing guide (Valler-Jones, 2014). This study concluded that the use of peer-led simulation was a "valuable educational approach" (Valler-Jones, 2014).

Using a model to support effective communication can be of benefit to provide structure, particularly if having to specifically deliver bad news (Gault, et al, 2017). Baile and Blatner (2014) describe how they used a well-known communication tool called SPIKES (Hagerty et al, 2005, cited in Gault et al, 2017) as a framework to teach communication skills to medical students using role play. In this study, they particularly focused on breaking bad news to

patients – a task that can often be a daunting prospect for healthcare students. They described how this approach helped medical students to recognise emotion and learn to respond with compassion (Baile and Blatner, 2014). In the study, they particularly focused on the preparation of students prior to the role play exercise, ensuring the creation of a safe environment, and asking students to bring scenarios that they have witnessed in practice to use in the role play exercise (Baile and Blatner, 2014).

In the US, Burden et al (2014), undertook some research using simulation training to teach leadership and communication skills with medical students in a cardiac arrest situation. The simulation exercises were recorded so the participants could review their performances using a checklist to identify good communication efforts following the simulation exercise (Burden et al, 2014). The same group of students repeated the same exercise six months later, to test out if the initial exercise had improved communication skills over a period of time. On comparing the outcomes of the two exercises, the research demonstrated a significant improvement in team communication six months after the initial exercise. Participants in the research also acknowledged the benefit of the simulation exercises and reported that the exercises increased their confidence when dealing with actual patients (Burden et al, 2014).

In a study based in Israel, Khalaila (2014), carried out some research to evaluate the effectiveness of simulation activities prior to practice placements in first year nursing students. The study aimed to explore if using simulation prior to clinical placements had a positive impact on students in terms of anxiety reduction and confidence building. The results demonstrated that anxiety scores decreased, and self-confidence increased, both of which were beneficial to the performance of the student in practice (Khalaila, 2014).

Along a similar theme of effectiveness of simulation in terms of improving the students' experiences in practice, a UK study carried out by Hope et al (2010) set out to explore the relationship between simulation, theory and practice with third year student nurses. The students shared positive responses to simulation as a learning approach, allowing them to facilitate the application of theory to practice within a safe setting (Hope et al, 2010). The students reported that simulation activities helped them to gain confidence and adequately prepare them for the practice setting by improving their problem-solving skills (Hope et al, 2010).

## Creating an effective learning environment to increase confidence in communication skills.

The literature has demonstrated that students may learn more and benefit from choosing their own case scenarios around which to base simulation activities (Valler-Jones, 2014; Baile and Blatner, 2014). Case studies are often used in many fields of higher education, particularly in business and management schools, as a way of creating real life situations to enable the students to develop employability skills (Fry et al, 2015, pp333). This concept is easily transferrable into nursing practice allowing students to "play out" clinical scenarios and think about how they would manage them in a practice setting, developing effective communication skills. As final year students, these skills may be of great benefit when attending job interviews. This approach would also empower students, and give them some autonomy over simulation style education, which has proven to be an effective approach when working with adult learners (Knowles, 1975, cited in Fry et al, 2015).

However, this style of learning may not suit some students; cultural influences may mean some students feel uncomfortable with this style of learning or may view a case scenario differently because of their cultural background (Frambach et al, 2014; Levitt, 2016). Equally, those students who are quieter and do not engage as readily in the classroom, may feel excluded if they find learning in this way a challenge, (Collins & Ting, 2010). Therefore, adequate preparation of students is vital to the success of simulation sessions. It should be considered that this is likely to increase preparation time for the lecturer and will need careful facilitation to ensure students are able to come forward with suggested scenarios. Care should also be taken to ensure patient and staff confidentiality when using "real-life" scenarios so the lecturer would need to set clear ground rules with students (NMC, 2015).

Alongside giving students the option to develop their own case scenarios for simulation training, the literature suggests that adequate preparation of the students is key to the success of the activities (Baile and Blatner, 2014; Warland, 2010). Some students may find this style of learning activity daunting, whilst others may embrace the opportunity to learn through practical experience. However, by adequate preparation, and consideration of which roles students may choose to play during the activity, there is opportunity to support learning for all students, regardless of their preferred learning style (Tutticci et al, 2016). Quieter learners or those who prefer to reflect on experience may learn better from taking on the role of observer during such activities (Honey and Mumford, 1986).

Several studies have used video-recording of simulation activities to use after the session to aid debriefing (Burden et al, 2014; Valler-Jones, 2014). This may be of benefit, not only to assist in debriefing, but also could be a valuable learning tool for students to revisit after the session. Debriefing after simulation activities is key for several reasons. It enables students

the opportunity to come out of "role", and to pause and reflect on the situation (Warland, 2010). For simulation activities to be effective, it is important for students to be able to share thoughts, think about what worked well and what might be improved upon, and what they have learned for the session (Warland, 2010; Lavoie and Clark, 2017). Using a structured reflective model, such as Rolfe (2011), which asks "what", "so what", and "now what", may be of benefit to aid effective debriefing.

Three of the research studies reviewed demonstrated a reduction in student anxiety and increased confidence prior to practice placements following a simulation activity (Khalaila, 2014; Hope et al, 2010; Warland, 2010). This must be seen as a positive impact for the students, the lecturers and the university. When students go out to practice placements they are representing the University of Hertfordshire, which is an important factor. Enhanced communication skills when working with patients and families continues to be a high priority in healthcare (NHS England, 2012). Multi-professional simulation exercises, which include nurses alongside other health professionals, have also been shown to increase confidence in communication skills, and therefore improve patient outcomes and quality of care (Truijens et al, 2015; Donovan et al, 2003; Ross et al, 2015). Therefore, providing simulation training that increases student confidence has to be a positive thing.

## Recommendations:

The literature suggests that using a more structured approach to simulation exercises for third year student nurses during their final practice module would be of benefit. Engaging with the students in terms of preparation for simulation activities appears to be key. For example, asking students to agree on case scenarios that could be used for simulation, particularly considering situations where they have experienced difficulties in communication or witnessed the difficulties of others. Alongside adequate preparation comes the need to create an environment whereby students feel comfortable with participating in simulation. As has been shown, using students to play all parts in a simulation exercise can have a positive impact on the experience; and could make the exercises less labour intensive for the teaching team, as fewer facilitators would be required. However, the facilitators would need to be very skilled and adequately prepared to be able to support the students to undertake all roles within simulation and additional time may be required to prepare the students in advance of the sessions.

The literature has also stressed the benefits of structured feedback following simulation sessions. Currently, there is limited time for this built into the sessions that are timetabled; but using a debriefing approach would allow the students to be able to clearly demonstrate their learning from the scenario-based simulation sessions and consider how they might be able to develop their communication skills to support the completion of their final management placement in practice. This may be facilitated by recording of the scenario

activities and playing them back to prompt discussion. It may also support future employment, by improving skills required to be demonstrated in an interview situation.

Moving forward it might appear sensible to try and measure the impact of these sessions. This could be achieved by assessing students' confidence in communication skills prior to the simulation session, after the debriefing exercise, and at the end of their final management placement (three months later) to see whether the knowledge gained has been lasting and well applied in the practice setting. This would enable the lecturing team to effectively evaluate the learning gained from simulation activities. It would also demonstrate a commitment to the public, giving high priority to the development of effective communication skills amongst newly qualified nurses.

It is likely that simulation style learning activities and effective communication skills will continue to be high priority when the new Standards for Nurse Education (NMC, 2018) are published by the NMC in a few months' time. Therefore, it is imperative that further consideration is given to this style of teaching to ensure final year nursing students develop the best possible communication skills to support their practice.

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## AN EXAMINATION OF THE APPLICATION OF PROBLEM-BASED LEARNING: A Valuable Tool to Improve Student Learning or a Challenging Teaching Adjustment?

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## Abstract:

Pedagogic transitions towards constructivist, student-centred learning models have increased applications of active teaching methods such as problem-based learning (PBL), but little research has explored student perceptions of PBL applications within undergraduate geography curricula. This paper aims to determine whether PBL applications are beneficial to student learning and development; and to determine whether PBL applications such as a migration management case study are suitable for continued use within the undergraduate geography degree programme at the University of Hertfordshire. This study examines the utility of PBL by reviewing existing education and discipline specific literature and by studying geography student reflections of a PBL migration management activity. The findings suggest that undergraduate geography students are largely receptive to PBL applications and find the inclusion of PBL activities within lectures to be useful and engaging. Although challenges can be associated with implementing PBL into higher education curricula, these challenges can be alleviated by using recommendations for best practice and it appears that the advantages of PBL applications for student learning and development strongly outweigh initial adjustment challenges. The predominantly positive student feedback demonstrates that the PBL migration case study is a beneficial addition to the geography degree programme at the University of Hertfordshire and that further applications of PBL within the curricula could be extremely valuable for undergraduate geography students.

**Key Words: Problem-based learning; PBL; Geography; Student-centred learning; Constructivist learning; Active teaching methods.**

## Introduction

In recent years there has been a noticeable pedagogic shift away from traditional passive learning models towards constructive and student-centred learning models (Biggs, 1996; Wright, 2011). To socially construct knowledge, students need to play an active role in their learning rather than simply listening to the lecturer passively and attempting to remember the information for assessments. Instead of this 'surface-learning' and content-accumulation, the constructivist theory of learning advocates opportunities for students to actively learn and encourages 'deep-learning' and sense-making (Beaumont, Owens, Barret-

Baxendale & Norton, 2008). Problem-based learning (PBL) is one such method of active learning which enables students to actively engage with teaching content. This paper will examine PBL as a teaching and learning method within geography curricula and review whether a PBL migration management activity should continue to be used within the level 5 geography module entitled People, Place and Movement at the University of Hertfordshire. As well as reviewing existing examples of applications of PBL within both higher education and discipline specific literature, this paper will review student reflections of a PBL migration management activity that has been implemented within the undergraduate geography programme at the University of Hertfordshire; to determine whether the use of PBL within geography curricula is beneficial to student learning and development.

## What is PBL and what are the theoretical foundations of its use?

Pawson, Fournier, Haigh, Muniz, Trafford & Vajoczki (2006) describe PBL as an activity that is often prepared in advance by the lecturer and enables students to learn necessary content by actively engaging in solving a problem scenario rather than passively learning a topic. Students generally work in groups to solve PBL activities and must utilise their pre-existing knowledge and skills to make effective decisions and find a solution to the problem(s) (Pawson et al., 2006). Students generally engage in these activities independently within small groups, whilst educators supervise the activities and monitor the progress that is made (Pawson et al., 2006). Some key philosophical elements of PBL are that it should emerge from an understanding of the different ways that students learn; it should allow students to collaborate and to be responsible for their learning; it should create opportunities for students to develop a range of skills and it should motivate students to engage in deep-thinking whilst making wider associations that can be connected to the problem at hand (Blumhof, Hall & Honeybone, 2001).

PBL aligns with the philosophical principles of constructivism, as it is an active learning technique which enables students to construct their own learning (Hendry, Frommer & Walker, 1999; Beaumont et al., 2008). The constructivist theory of learning views knowledge as a social construction, which is formed by individuals as they learn and make sense of situations (Beaumont et al., 2008). This contrasts with traditional learning models, such as positivistic theories of learning, whereby knowledge is often viewed as something that is external from the individual learner and is transferred from the lecturer to the students didactically (Beaumont et al., 2008). Although lectures have traditionally been taught didactically, there has been a pedagogic shift towards constructive and student-centred learning models in recent years as active learning opportunities are now generally accepted as being beneficial to student learning and development (Biggs, 1996; Wright, 2011). PBL aligns with constructivism as it enables students to learn actively and to form knowledge by

interacting with information and formulating a solution to a problem (Beaumont et al., 2008).

## A literature review of the use of PBL within higher education curricula

There are many existing PBL studies from a wide range of different disciplinary backgrounds, which demonstrate the implications of utilising PBL within higher education curricula. Table 1. Illustrates some of the positive and negative implications.

Table 1. *A literature review table presenting positive and negative implications of PBL applications within higher education curricula* (Buckland-Stubbs, 2018).

| Positives of PBL | Negatives of PBL |
| --- | --- |
| The complex learning environment created through PBL enables students to develop skills and characteristics which are beneficial for employability (Blumhof et al., 2001; Beaumont et al., 2008). | It can be time-consuming for lecturers to prepare PBL activities and to prepare resources in advance (Pawson et al., 2006; Blumhof et al., 2001). |
| PBL allows students to share their ideas with others and hear the views of their peers (Pawson et al., 2006). | When implementing PBL there can be difficulties managing group work and ensuring inclusivity (Wood, 2004). |
| PBL encourages teamwork and cooperative learning experiences encourage meaningful learning and higher achievement (Smith, Sheppard, Johnson & Johnson, 2005; Pawson et al., 2006). | Assessing individual student learning during PBL tasks can be challenging and may require alternative assessment methods rather than traditional assessment techniques (Major & Palmer, 2001). |
| PBL helps students to develop process skills and teamwork skills, which can encourage peer support, self-efficacy and independent learning (Beaumont et al., 2008). | PBL can be difficult to complete if students have insufficient research skills (Blumhof et al., 2001). |
| PBL enables students to practice with 'real-life' scenarios and learn in a practical way, which may suit particular student learning-styles (Pawson et al., 2006; Beaumont et al., 2008). | PBL assessment is subjective and can be challenging to manage impartially (Shah & Meisenberg, 2012). |
| PBL can be viewed as interesting and different from traditional approaches, which may be more memorable for student learning (Wood, 2004). | Small group PBL activities can be difficult to organise when student to staff ratios are high (Blumhof et al., 2001). |
| Cooperation through PBL can help to develop higher levels of thinking, essential communication skills, improved motivation, positive self- esteem, social awareness and tolerance for diversity (Beaumont et al., 2008). | Student cohorts often have mixed abilities and some students may be less able to manage their own learning compared to others, which |

| | may create difficulties during PBL activities (Blumhof et al., 2001). |
|---|---|
| PBL can be utilised in multiple formats, for example PBL can be used as the basis for an entire curriculum, as individual group activities within lectures or as assessments. | The use of PBL challenges the traditional role of the lecturer and the students which may cause some anxiety when adjustments are made (Benjamin & Keenan, 2006). |

(Buckland-Stubbs, 2018).

Table 1 demonstrates that PBL can assist students to develop a wide variety of skills; to contribute to their own learning; collaborate with their peers and to understand the importance of content within a wider context (Blumhof et al., 2001). The positive implications of PBL presented in Table 1 suggest that utilising PBL within teaching structures can enable students to develop multiple skills, expand the depth of their thinking, and enhance student learning.

In addition, Biggs (2003) states: 'As we learn, our conceptions of phenomena change, and we see the world differently. The acquisition of information in itself does not bring about such a change, but the way we structure that information and think with it does.'  (Biggs, 2003, pp. 13)

In accordance with Biggs (2003), Wood (2004) states that practical 'experiential' teaching structures such as PBL are more effective for student-learning than learning solely through reading or listening. This is because, in accordance with cognitive approaches of learning, practical learning enables people to process new information in an effective way and to form associations between newly learned content and existing knowledge, which makes the information more memorable (Wood, 2004). Additionally, engaging in PBL tasks is thought to encourage students to analyse, evaluate and synthesise information, which can enable students to achieve the higher educational objectives defined by Bloom et al. (1956) (Blumhof et al., 2001).

Although the literature review presented in Table 1 suggests that utilising PBL effectively can have a wide range of valuable benefits, it also demonstrates that some challenges exist which need to be considered when implementing PBL into higher education curricula. For instance, it is important to recognise that some individuals may perceive group work tasks such as PBL to be challenging (Popov, Brinkman, Biemans, Mulder, Kuznetsov & Noroozi, 2012; Wood, 2004). For example, Popov et al. (2012) explored factors which students perceived to be the most significant challenges during multicultural group work tasks. The results indicated that the students viewed issues of free-riding, inadequate English skills and ineffective inter-student communication as the most challenging factors of group work. On the other hand, group members dominating tasks and the need for individuals to accept group decisions that they were not entirely satisfied with themselves were perceived to be lesser challenging factors (Popov et al., 2012, pp.310). In addition to these group dynamic

challenges, mixed educational backgrounds within groups; differences in communication, decision making and problem-solving methods; and different motivation levels within groups can affect cohesion and the level of success achieved during group tasks.

Many of these challenges can create issues of inclusivity as some students are likely to be more engaged and have a more positive experience of group work activities than others, who may be less engaged or find the experience to be more challenging. Because of this, it is important to alleviate inclusivity issues by managing group dynamics and reducing group work challenges wherever possible (Wood, 2004). To do this, Wood (2004) recommends that lecturers should aim to make PBL teaching environments places of open discussion where no student feels threatened, and everyone feels that they are able to contribute freely and enjoy the task. Additionally, encouraging compassion among students and implementing compassion into the curriculum is another mitigation method that can assist groups to behave inclusively and to resolve dissonance effectively (Gilbert, 2017).

Group work performance issues and some of the other challenges that are associated with the use of PBL (presented in Table 1.) can also be resolved by using recommendations for best practice; such as making expectations clear and providing students with necessary guidance (Jenkins, 2006); supporting staff and students who are adjusting to using PBL (Chappell, 2001); and building a co-operative and constructivist learning environment (Solem, 2001). Although there are often challenges involved when transitioning to PBL, Chappell (2001) states that most transitions are eventually deemed to be worthwhile, suggesting that in the long-term the positives of utilising PBL are likely to outweigh the challenges.

## Applications of PBL in geography teaching: should PBL be utilised in geography higher education curricula?

Existing literature demonstrates that PBL can have a variety of applications within geography curricula (Jenkins, 2006; Belt, 2001; King, 2001; Solem, 2001 and Alexson & Kemnitz, 2001; and Perkins, Evans, Gavin, Johns & Moore, 2001). For example, Jenkins (2006), Belt (2001), King (2001) and Alexson & Kemnitz (2001) present various case study applications of PBL within geography and environmental science degrees, showing that PBL is viable as a teaching method within the discipline. Furthermore, Solem (2001) discusses various ways that geographic information systems can be utilised alongside PBL activities in geography curricula to support student learning, and Perkins et al. (2001) advocate the use of PBL within fieldwork to enhance the geography student experience.

Additionally, it is recognised that many geography graduates enter careers which are not explicitly related to their geography degrees (Pawson et al., 2006). Therefore, geography graduates are likely to benefit from having the ability to adapt to new situations and engage

with newly-provided information. Pawson et al. (2006) advocate that it is the ability to learn how to learn that is most important, rather than the actual taught content. Active learning opportunities such as PBL are more likely to enable geography students to be able to synthesise information and develop adaptation skills than traditional passive and content-driven styles of teaching. Therefore, the inclusion of PBL activities within geography curricula in higher education environments would enable undergraduate geography students to gain valuable assets to assist them in terms of personal development and employability.

In addition, practitioners in higher education are encouraged to ensure that their actions at the lecture and module level adhere to the holistic aims of the degree programme and encourage student development. According to the BSc geography degree programme specification at the University of Hertfordshire, the geography degree is structured to respond to important global physical and human issues; to enable students to understand geographical trends; and to allow students to develop independent learning skills to prepare graduates for a variety of careers (Schmeer, 2017). Furthermore, the programme specification states that geography graduates will be 'trained to deal with multivariate problems and to grasp their wider implications' (Schmeer, 2017, pp.3). The inclusion of PBL within the geography degree curricula at the University of Hertfordshire would reflect the aims of the programme specification by enabling students to demonstrate evidence of solving multivariate problems and understanding the wider context of various global issues. Therefore, the use of PBL within the geography degree at the University of Hertfordshire seems extremely appropriate and relevant to the holistic goals of the programme.

## A PBL case study: A migration management activity used within the undergraduate geography degree programme at the University of Hertfordshire

I have been teaching in higher education for approximately two and a half years and currently my most significant contribution to the geography programme at the University of Hertfordshire involves a series of three lectures on migration that I designed for the level 5 geography module entitled People, Place and Movement. To date I have taught these lectures to two different cohorts and I have trialled a range of different teaching methods to attempt to improve student learning and engagement (such as question and answer exercises; incorporating videos and technology; and a PBL activity). The PBL activity was created using an adaptation of the principles that are recommended in the Blumhof et al. (2001) hybrid model of PBL. Blumhof et al. (2001) developed their hybrid model of PBL through the Hertfordshire Integrated Learning Project. They believed that their model was consistent with the philosophy of 'pure' PBL, but that their hybrid model was more effective and transferable across a wider range of disciplines than the traditional medical school

model of PBL (Blumhof et al., 2001). The hybrid PBL model created by Blumhof et al. (2001) was chosen as the basis of the PBL migration case study activity because the model was designed to align with the general educational aims of the University of Hertfordshire and to support the university's Learning and Teaching Strategy (Blumhof, et al., 2001). The flexible elements of the hybrid model that were used to create the PBL case study activity included:

- The lecturer develops resources for the students to utilise during the activity.
- The lecture begins with a framework talk before the PBL activity takes place.
- The problem-based activity drives the learning process for the students.
- The lecturer facilitates the activity and rotates around each group.
- The students are given an opportunity to reflect on the process of completing the PBL task.

Although recommended by Blumhof et al. (2001), the students were not explicitly told about the graduate skills that could be developed by taking part in the PBL activity because of time constraints. However, in future uses of PBL I would advocate explaining possible development benefits to students, as I believe that this would signpost intangible forms of learning and add to student incentives to engage in the activity.

To initiate the PBL activity, the group of 42 students were asked to split themselves into seven groups of six. Each student was then provided with a handout (shown in Figure 1) which outlined the requirements of the PBL activity. The purpose of the task was to enable the students to gain a first-hand realisation of how difficult it can be to manage a migration situation, how different decisions can affect different actors, and the array of differing views and approaches that people have concerning migration; which contribute to the complexity of migration management.

The students were asked to spend fifteen minutes reading the handout, discussing the problem within their groups and preparing a solution. The lecturer moved around the lecture theatre, visiting each group to ensure that all the students were sufficiently progressing with the activity and then after the fifteen minutes had passed, each group was asked to feedback their ideas to the rest of the class. At the end of each group's presentation, the lecturer engaged the students in a small discussion about their ideas and probed them to explore their ideas further where appropriate. When all the groups had presented their ideas to the cohort, the lecturer then summarised the activity and reiterated the key points that the students were expected to learn from the PBL task, to ensure that all of the students had an equal level of understanding.

Figure 1. The handout provided to the students to initiate the PBL migration activity

**(Spend 15 minutes reading and preparing your answers in your groups)**

As the UK voted for Brexit, France no longer feels that they should have to hold the burden of responsibility for controlling the UK's borders and decides that they will no longer check people's nationalities or documents at Calais. The French border checking facilities are closed down and the UK is told that they must manage their own border controls in Dover and Folkestone.

Meanwhile 1,000 migrants flee war torn Syria, spend weeks travelling and risk their lives crossing the Mediterranean to reach mainland Europe. 200 of them aim to reach the UK because 90% of them can already speak English and 40% have some family members who already live in the UK, so they do not apply for asylum in any of the countries that they pass through on their way to the Calais border.

The media has released countless headlines covering the removal of the border controls in Calais and the potential swarm of refugees that can now reach the UK freely. The leader of the UKIP party has also released a statement calling for immediate stricter border controls in the UK.

Charities and refugee agencies have arrived in Dover and Folkestone to try to help refugees and migrants when they arrive in the UK.

When the refugees arrive in Calais they discover that there are no checks and they can board the ferry or the Eurostar train directly to the UK. A further 300 migrants who have been living in squalid conditions in the Calais Jungle for months have also boarded transport to come to the UK.

The UK intercepts the Syrians and other migrants in Dover as they disembark the ferry, and in Folkestone as they disembark the Eurostar – and now decisions must be made.

**1.) What actions should the UK take to manage the situation?**

For example:

- Should the UK accept all of the refugees? Should the UK only accept a percentage of the refugees? If so, who should they accept and who should they reject? under what conditions? Or should the UK send all of the refugees away? And if so, where to?

Is there a security threat? Should actions be taken to help integration? What actions would be needed in UK services? If they are allowed to remain in the UK, where will they live? Will they have the same rights as UK citizens?

At the end of the lecture, the students were provided with an opportunity to reflect on the PBL migration activity. Each student was given a post-it note and encouraged to comment on what they enjoyed about the session; recommendations for improvements; and what they thought about the PBL activity.

Figure 2. A summary table presenting student reflections of the PBL case study (migration management activity).

- Hearing people's ideas was useful
- It was good to think about it and hear other people's opinions
- It made us think about current dilemmas
- Engaging activity, it puts things into context
- The activity was really interesting as it actually made me realise how difficult it is to try and solve migration issues
- It broke up the lecture
- Useful
- I gained a better understanding from hearing the opinions of others
- The activity was enjoyable
- A good exercise, it was challenging and thought-provoking
- I liked the group discussions because it was interesting hearing other people's points of view
- I really enjoyed the activity as it keeps us engaged and we were able to form own opinions on different situations
- The exercise was fun and engaging
- The activity was interesting
- The activity was interesting as it applied to real-life
- The exercise made it easy to understand how hard it is for Governments to make decisions
- The exercise was very engaging and made you think critically about issues
- The activity was the best part as it showed real opinion and not led opinions based on what is published in literature
- The activity made me realise how hard it is to implement strategies
- I liked the migration activity
- The exercise was difficult but enjoyable
- Challenging
- I wanted to hear more of the lecturer's opinions on the topic

Figure 2 illustrates that student reflections on the migration management scenario PBL activity were largely positive and demonstrates that most of the students found the activity engaging and interesting. It appears that a lot of students thought that the activity was

beneficial to their learning, although some students expressed that they found the task quite challenging, and many appeared to value the opportunity to contribute their own ideas to the session as well as listening to the ideas of their peers. The only explicit criticism of the PBL task that emerged from the student reflections was a call for more of the lecturer's opinions to be shared during the activity. The lecturer purposefully avoided sharing personal opinions during the task, to avoid any bias influences, as the aim was for the students to form their own ideas and collaborate with their peers to create a solution. However, perhaps in future applications of PBL tasks this could be considered during the final group feedback of the activity provided by the lecturer, which could act as an opportunity for the lecturer to share a personal view after the students have already presented their contributions. Alternatively, or additionally, the lecturer may choose to highlight the fact that complex issues such as migration management often do not have a readily available 'right or wrong' answer and that the outcomes of such complex dilemmas are often dependent on the amount of information and evidence provided to support specific arguments.

## Conclusions

The literature review demonstrated that although some challenges can arise when attempting to implement PBL into higher education curricula, difficult transition periods often prove to be worthwhile (Chappell, 2001), and there are numerous beneficial impacts of utilising PBL; particularly with regards to student learning, engagement and the development of personal and graduate skills (Blumhof et al., 2001; Beaumont et al., 2008). It seems that many of the challenges associated with PBL could be mitigated against by following recommendations for best practice, so it appears that the overall value of utilising PBL outweighs the challenges. Furthermore, the largely positive feedback from the student reflections on the migration management PBL case study demonstrated evidence that the learning objectives of the PBL task had been met and that most of the students enjoyed the activity; which reinforced the lecturer's belief that the PBL task is a valuable addition to the People, Place and Movement module within the undergraduate geography degree programme at the University of Hertfordshire. As a result, the lecturer will continue to utilise the migration management PBL activity in subsequent years and will also consider extending the use of PBL applications to other teaching opportunities within the geography degree programme at the University of Hertfordshire. However, the lecturer will aim to improve the delivery of PBL applications in the future by implementing the recommendations for best practice that emerged from the literature review and by continuing to obtain and act upon feedback from students and colleagues.

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