Clinical Educator Programme

Reflective Portfolio

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Introduction

In August 2016 I will take up an ACCS Anaesthetics training post in London. Over the last four years my teaching has been placed in a wide range of contexts from undergraduate teaching on the wards; to the education of layman in the Himalayas; to postgraduate lectures. This has been facilitated by a 2-year foundation program in Edinburgh where I took on a number of teaching roles including working as a Clinical Tutor Associate (CTA) and as an SSC2A tutor. I followed this with 2 years out of training and took advantage of a number of teaching opportunities in a number of roles - from expedition medic to a long term posting in a high altitude rescue post.

PART 1 (a)

Prior to the Clinical Educator Programme I had had very little, if any, training in teaching. My first semi-formal teaching experience occurred through “The Bedside Teaching Programme for University of Edinburgh Medical Students as an FY1 doctor. Through this programme I was able to easily arrange sessions, generally at a time that suited me, due to the great demand from (and sheer number of) students. I was also introduced to formal feedback forms and began to receive formal feedback from my students. The programme provided a constant source of students who wanted teaching; an online process for organising sessions; and guaranteed written feedback after every session. In many ways therefore the sessions were orchestrated by those who organised the programme rather than myself.

Nevertheless the content of the sessions were under my control. I selected patients from wards in my hospital and designed sessions around organ systems (i.e cardiac, gastrointestinal, respiratory e.t.c). Often I asked colleagues on the wards to identify patients who would be suitable both in terms of clinical signs and clinical status. I would then visit each patient in turn and discuss the major aspects involved in bedside teaching before asking for verbal consent. Most were more than willing. Up to 6 students would meet for each session. I would outline the organ system, the number of patients and estimated time of the session. We would then go to each patient in turn, I would ask for a volunteer and if, as was often the case, no-one volunteered I would simply ask the student closest to the right-hand side of the patient to begin. I only interrupted the process of history and examination if we were running out of time or the patient’s safety/dignity was at risk. I also asked the patient not to reveal the diagnosis. Interestingly one patient noted this on their feedback form;

“Both doctor & student were quiet, pleasant and the student asked permission before doing any new step which was reassuring. Doctor did not interrupt during session, but answered my question at the end” – Patient

My goal was to mimic a junior doctor’s first assessment of a patient; a daily clinical scenario that occurs in the acute medical admissions unit or the emergency department.

In a private setting (away from patients and hospital staff) the student would then present the findings in front of the group. I would lead a Socratic discussion, opening questions up to the group and
concluding with the major learning points of the case followed by any questions from the students. Where appropriate, basic investigations such as chest radiographs and electrocardiographs would be included towards the end of the discussions. From my point of view the sessions were flexible and fluid - adapting to the group’s needs; the resources available at the time (patients were sometimes absent); and my own bank of knowledge. I had never been taught how to give these sessions and yet my feedback was consistently excellent (see Appendix i). Of course negative feedback is not always forthcoming even when students are not happy with sessions, nevertheless, the only negative feedback I received was;

“Maybe do 3 systems rather than 2”

“Would be good to have more sessions available to different students – difficult to get spaces”

Students clearly liked “bedside teaching”, a scarce resource, - and to a large extent I think this explains the positive feedback I received. However, it also became apparent that they liked the approach that I took to running the sessions. But where had I learned this approach? And why was I able to provide teaching sessions with excellent feedback with close to no knowledge or understanding of educational theory?

I believe the first reason is that I had received excellent bedside teaching for 3 years at the University of Oxford. I consider these sessions some of the best medical education I have received to date and the enthusiasm of those junior doctors will be with me for the rest of my career. My approach is based on those sessions. In a way therefore my approach to bedside teaching was developed through a “see one, do one, teach one” model. It is also interesting to reflect on one of the aims of the Edinburgh Bedside Teaching Programme – to assess how students found teaching from junior staff compared to senior. I do not know the results from the programme as a whole but certainly the feedback I received suggested that students believed sessions from junior medical staff to be more relevant, effective, enthusiastic, fun and approachable. Personally I do not concur completely with this feedback – good teaching depends on the teacher. Nevertheless it is understandable that junior staff might provide more relevant and focused teaching content at a level which students find easier to assimilate.

So I believe my positive feedback from these early sessions was in part due to the scarcity of bedside teaching; the fact that students like bedside teaching; and my ability to convert my own great bedside teaching experiences into similar learning experiences for the students. It must be said that this last point is up for debate – after all hearing a great lecture will not make everyone in the audience a great lecturer. Nevertheless it is clear to me that my first approach to teaching came about through a process in keeping with Kolb’s ‘experiential learning cycle’ (1).

Since those sessions my activities have included 18 months experience as a Clinical Tutor Associate (CTA); facilitation of an SSC2a module; the design and provision of a programme of teaching on an expedition; helping tutor simulation sessions; marking reflective writing; lecturing on the Advanced Diploma of Mountain Medicine; teaching on the British Mountaineering Club two day public seminar course; and providing a daily altitude talk to trekkers in Himalayas over a period of 2 months for the
International Porter Protection Group. In all these roles both my ability to provide teaching but also support was stretched. I also developed a better understanding of the variation in learners’ needs and how these might be affected by group dynamics.

As a CTA I continued to provide similar teaching sessions. As there was a limited group of students arranging times to meet was more difficult but the benefits of continuity were clear. Teaching could be focused on the students’ suggestions and my own intuition based on their performance. I included a number of small group seminar sessions – such as interpretation of chest radiographs. I began to organise sessions with more specific aims and goals – these would be directed by the group and highlighted as objectives during a brief introduction. These changes were a direct result of the “Planning and Evaluating your Teaching” workshop and helped take my teaching style from impromptu dialogue to structured sessions with specific outcomes - as a result Powerpoint became a useful tool. As sessions became more academic and seminar based I received some very useful points of negative feedback;

1) “When giving lots of information particularly drug names – might be helpful to write some of them down on a piece of paper in front of the students or on a white board if available. To make it easier to learn spellings of drug names and to help with memorising them” – Medical Student from CTA group

2) “Start with normal chest xray”, “Would help to have normal chest CXR first to compare to” Medical Students from CTA group – Introduction to CXR session.

The feedback ultimately reflected my lack of understanding of the students’ learning needs. Firstly, failure to grasp that the drug names would be new, and therefore very difficult to remember correctly without a visual aid, and secondly that the students had seen very few normal chest radiographs prior to the session. All my teaching sessions now include a “normal” example where relevant and new terminology is written down where possible. This development was crucial to the program of seminars I provided to lay expedition members in the Himalayas. Numerous new medical terms needed to be incorporated into an effective and very practical learning experience. Writing these terms down aided the learners and also highlighted to myself that these terms were new for the learners.

Bedside teaching and my role as a CTA relied heavily on didactic teaching. However, I used the Socratic method as much as possible. I like this teaching method as it requires continuous dialogue ensuring engagement; critical thinking; and a more effective learning experience since students are more likely to recall information that they have constructed through understanding rather than passive listening. In many respects I consider it a means of catalysing Kolb’s cycle except that experience is replaced with imagination and critical thought. Through this method I began to recognise some of the challenges of small group teaching (SGT) and the SGT workshop allowed these ideas to be distilled and analysed.

One of the greatest challenges was ensuring equal engagement from all members of the group. Yet at the same time I had to reflect that quiet members may be equally engaged and that this may reflect a
different learning approach. As a student, on a few occasions, I received feedback that I was quiet in group sessions. However, this was entirely dependent on the group dynamics. In my own teaching I learnt to appreciate the group dynamics and tread the fine line between active inclusion of quieter students without isolating or identifying them (passively or actively) as “the quiet, unengaged one”. One of the huge benefits of the CTA model is the continuity of the Tutor-Student interaction. This provides adequate time for rapport to build, less confident students to flourish and group dynamics to be played out or addressed. Thus questioning by the tutor can easily transform into dialogue and avoid the possible set backs of the Socratic method (2). For example, I ensured inclusion of a quieter student by ensuring that each student examined a patient and reported their findings every session: an inclusive rather than exclusive means of ensuring participation by all.

As an SSC2a tutor I was required to transform my current role from didactic teacher to facilitating tutor. Furthermore, I had to help students understand topics which I had previously never taught such as statistics, critical appraisal and website design (of which I have little experience myself). The goals of the module were fairly liberal - each student should present one critically appraised paper; a final website needed to be completed by the students; and regular seminars needed to take place along with mid-module feedback. As such I had almost complete control over the structure of the seminar sessions for a group of 8 students who had selected my topic: “The Brain at High Altitude”.

I was unavoidably away during the first 2 weeks of the module. I therefore sent a short list of references, a few suggestions for the primary topic of the website and an invitation for questions by email with the proviso that I would try to reply as soon as possible. This ensured that my absence had as little impact on the students as possible. I also learnt a new and very useful form of teaching and guidance – in effect distance learning, or rather distance teaching and support. I ensured that the references were highly relevant, readable and that the list was short and not intimidating. I managed to answer all questions prior to my return and feedback was very positive (Appendix ii). I had also set a precedent for “out of hours questions” and continued to receive queries throughout the course by email. I was able to effectively reply in almost every case and this was appreciated by the group (Appendix ii).

As mentioned there were a number of challenging topics which I did my best to clarify for the students including statistics, research methods and advanced neurophysiology. Once again I used the Socratic method which ensured that each step of the thinking process was displayed to the group and furthermore that no step could be skipped, improving the chance of everyone understanding the concept. If students could not make the intellectual leap to the next step in critical thinking I would try to ensure that everyone understood the thinking process before moving on and this method proved to be very successful with the students (Appendix ii).

The transition from didactic teacher to facilitator was challenging. In particular I found it difficult to provide constructive feedback on the final website and its content without rewriting sentences and therefore doing the work for the students. In addition, I had to cope with a wider range of abilities than my previous teaching experiences due to the larger size of the group and a prolonged period of tutoring. This meant that the level of feedback and guidance required varied greatly between students,
and I was concerned that some weaker students would feel uncomfortable receiving constructive criticism in front of the group.

Avoiding public feedback, however, was difficult for a number of reasons. Firstly, all changes to the website were going to be known to the entire group and as such critical feedback was always going to be in someway or another public. Secondly, the project focused on working as a group and the seminar sessions relied heavily on dialogue and critical feedback. One solution was for each student to present a paper as part of the seminar sessions. This ensured that all were open to discussing their attempt in front of the group. I then suggested that the same student incorporate their paper into the website. Each student was also required to provide feedback on all the other students’ presentations and website sections. I therefore used two techniques to ensure that all students were equally and actively included in the project. Firstly, all students were required to perform equal tasks and secondly, I used peer-to-peer feedback to lessen the impact of my feedback on weaker individuals and encourage dialogue within the group (see SGT Learning Card). Whilst I found the line between facilitator and website editor difficult for the students suggested that for them I struck the right balance (Appendix ii).

Ultimately a good teacher needs to have tons of enthusiasm and be able to effectively communicate this to their students, in other words inspire them. I chose a subject which I am fascinated with and have had fairly unique clinical experience of: High Altitude Cerebral Oedema. My enthusiasm for this topic together with my passion for SGT was a winning combination, and it was most gratifying that the students felt this way as well (Appendix ii).

This was supported by an attribute that I hold very highly on my list of priorities both as a clinician and educational provider - approachability. As an educator this promotes an environment in which students can challenge ideas, offer opinions and ask questions at any point without inhibition from hierarchical social factors. Furthermore, it also acts as a critical role model for their future clinical practice in which hierarchy and lack of approachability have been linked to clinical errors and patient harm (3),(4).

PART 1 (b)

1 A technique I had already used as a CTA when I asked all students to exam one patient per session.
Informal Assessment and feedback

Useful assessment and feedback takes time for both tutors and students. I was confronted with this all too obvious phenomenon whilst on a busy A&E shift – whilst attending to a patient in the resuscitation bay I asked two medical students to explain the ECG changes in COPD. I was short of time and ill prepared, and ultimately I gave an incorrect and very poor explanation of cardiac axis before having to rush off to see another patient. I was fortunate enough to be able to rectify my mistake by reviewing the topic in the evening at home and catching the students the next day during my break to fully review the topic- correcting my mistake and explaining the concept of axis clearly.

This is an example of informal assessment and feedback – an extremely useful medium when used appropriately. One of the greatest advantages of this form of assessment is the proximity to the real clinical environment/experience. For example, whilst working in the Himalayas I regularly observed a final year UK medical student see patients in clinic and reviewed her practice and management after initial assessment. This provided a perfect opportunity for safe transition from student to practising doctor - my feedback often functioning as positive reinforcement – an important step in confidence building.

As discussed the benefits of informal verbal feedback are sometimes outweighed by the limited learning opportunity – crucial points occasionally being missed by the tutor or important learning points forgotten by the student due to time constraints and distractions. The role for formal assessment and feedback is therefore clear.

Formal Assessment and Feedback

My ability to provide assessment and immediate formal verbal feedback was observed as an Intermediate Life Support Tutor. Students were assessed as a group when managing simulated acute illness. I received reassuring feedback with regards to some basic structural formalities –

“You introduced yourself nicely to the learners”

“You clearly explained the utility of this scenario in your summary which is entirely appropriate in this type of teaching.”

However, whilst such formalities are important, it is the manner in which the assessor interacts with their students which allows them to perform at their best. I was therefore pleased to receive positive feedback in this regard (Appendix iv).
Adaptability is an important aspect of assessment (particularly during simulation sessions) as it allows assessment to be more realistic and feedback more personal. During the teaching observation I demonstrated my awareness of this factor and implemented it effectively;

“First group - clear overview, then repeated because of late comer”
“Good instructions, then I liked how you stood back while they decided roles”
“I was interested to see you then allocate roles next time around. We talked about this after and you mentioned good practice for roles in arrest calls eg. You changed as you felt it was perhaps a step too far for them today and allocating roles certainly helped speed the start up with future groups”

Ultimately assessment should be a constructive process in which feedback stimulates the student to evaluate their performance and prompt further dialogue between student and tutor. I have gradually developed methods to provide constructive criticism to individuals in a group. In dynamic groups I have found asking for feedback from everyone in the group including the performing individual to be an excellent way to ensure that my role is more of a facilitator of feedback rather than the bearer of all comments, critical or otherwise. This worked well as a CTA and as an SSC2a tutor. It was also commented on during my observed teaching session;

“The third group was interesting - I think you dealt with them really well when the scenario had not gone well. I felt that you involved everyone which was great – including the observers each time around in the group discussion. You wondered if this then meant that those who had been in the hot seat did not get enough chance to debrief themselves, which may be true”

The most important point noted from the feedback after my observed teaching session was that I can at times answer my own questions too quickly (Appendix iv).

Since then I have also become more aware of my practice in the clinical setting with junior colleagues – such that with critically ill patients I become eager to move the management forward and, on occasions, do not give the junior staff sufficient time to complete tasks or develop their management plan. I hope that with more confidence I will be able to address this issue in both my teaching and clinical practice.

Providing written formal feedback on academic writing has a number of challenges of its own. Notably this form of assessment is less flexible (often due to mark schemes) and is usually one directional – with less or no opportunity for dialogue between the student and tutor. In such a process it is critical that one’s feedback is clear and can be directly related to a specific element of the manuscript. I find that quoting an exact section, or sections, of the essay extremely useful in this regard. A number of other benefits of this technique were also described in the feedback I received as part of the “Written Reflective Marking Module” (Appendix iii)
I have always enjoyed the dynamics of small group teaching (SGT). Such groups allow one to assess individual characters and estimate learners’ needs. Furthermore, one is normally afforded the time and flexibility to address both the group and the individual. Such benefits, however, are not without challenges.

a) Medical student SGT

As an SSC2a critical appraisal tutor I facilitated the production of a website by a group of 8 students who had selected my topic of choice: “The Brain at Altitude”. The group met weekly to critically appraise the literature and work towards producing the website. Providing constructive critical appraisal publically was therefore unavoidable and part of the process. Indeed, learning from other students’ mistakes or difficulties was potentially a very useful learning medium for all students. However, in a group of mixed ability it was very difficult not to end up overloading particular individuals with a lot of critical feedback whilst struggling to balance this with equal volumes of feedback to other, more capable students.

Ultimately, not providing students with sufficient feedback is detrimental to their progress and, in my view, poor teaching. However, providing this feedback in a tactful manner that does not undermine confidence and also ensures that individuals do not feel paraded in front of the group is vital. This was particularly difficult during this project since all feedback would necessarily lead to changes on the pages of the website written by that particular student. Furthermore, providing timely private feedback in group sessions is next to impossible. I worked around this problem by ensuring that every student reviewed and critically appraised each section of the website. I could then provide feedback on the more able students’ appraisal of other, less able, students. In addition, private email communication with all the students was made available from the very beginning of the project. This ensured that such a pathway of communication was normalised from the beginning and avoided students envisaging such emails as a sign of failure. I received excellent feedback from all students and many specifically mentioned the benefits of email communication between sessions.

b) Training layman on expeditions

Of course mixed ability groups are not restricted to small groups. When working as an expedition doctor for the British Exploring Society I was required to design and provide a teaching program of first aid for 40 young explorers (16-24) posted in the Himalayan mountains of Ladakh, India. There was a vast array of ability, interest and enthusiasm – from Oxford biology undergraduates with a specialist high altitude interest to post-GCSE students with learning difficulties. A number of basic messages needed to be understood by everyone to ensure the safety of the expedition (e.g diagnosis and management of acute mountain sickness, how to evacuate an immobilised patient e.t.c). When teaching medical students I aim my
sessions at the average or above average level of the group – doing my best to help the least able where necessary. However, these sessions needed all of the group to gain a practical working knowledge of first aid; nothing more, and most importantly, nothing less. My teaching therefore needed to change and target the least able in the audience to ensure that everyone could perform a number of basic but potentially life saving procedures. Practical exercises repeated in groups followed by feedback ensured that no one slipped through the net and enhanced the learning of those more able through repetition. This method of teaching proved to be very effective. And when tested by a very difficult emergency evacuation over glacial terrain towards the end of the expedition the team performed excellently. The efficacy of keeping teaching simple, direct and repetitive was evident.

**Teaching First Aid to Nepalese Lodge owners**

Providing basic first aid teaching in a remote mountain village in Nepal focused one’s ability to quickly ascertain the level of the learners and, indeed, their language skills. It quickly became clear that whilst a handful could speak very good English many of the quieter participants were failing to understand anything despite nodding and insisting that they understood. It required a rather dogmatic teaching style to ensure that everything was translated into a total of three languages – Sherpa, Rai and Nepali. It was also interesting that a few asked for teaching on prescribing whilst others suggested rubbing salt on burns as first aid treatment. Appreciation of such diversity was only gleamed through SGT and direct questioning to each and every participant in turn.

Through these experiences (and more) I have learnt the importance of quickly assessing one’s audience; making the necessary alterations to one’s teaching to ensure that appropriate learning outcomes are set; and then adapting one’s teaching style to give the best chance that such outcomes are effectively met by all.

c) Through voluntary teaching with the British Mountaineering Council, the British Exploring Society, the International Porter Protection Group and the Advanced Mountain Medicine Diploma I have continued to enjoy and enhance my engagement with numerous lay and professional groups. Through the University of Edinburgh I have taken on a number of specific roles in higher education including teaching as a CTA, an SSC2a tutor and an instructor for Intermediate Life Support simulation courses. Such diverse roles have implicitly promoted equality of opportunity for a wide range of learners.

d) In my own practice my drive to remain up to date and make evidence informed decisions flows directly into my own teaching practice. I recently supervised a medical student on elective in a rescue post in the Himalayas. My completion of the Diploma in Mountain Medicine and my on-
going involvement in this field with lectures at the advanced mountain medicine course and a number of international conferences ensured that my teaching was up to date. It also allowed a number of very interesting academic discussions to take place following interesting cases – such as the controversial use of prophylactic dexamethasone for tourists travelling to high altitude – a topic which I hope to support my student discuss in an academic article.

Of course along side these personal insights I continue to formally develop my knowledge and skills through post-graduate diplomas (e.g DipMM, DTM&H), practical courses (ALS, ATLS, Basic Surgical Skills), conferences (International World Extreme Medicine Conference, Leicester-Gondar Link Mini-Conference, Developing World Anaesthesia conference e.t.c) and exams (MRCP Part 1). This is complemented by private learning which may be informal or recorded on online systems (e.g eLFH)

e)

These academic achievements lend themselves directly to providing quality teaching and support in a clinical setting – the environment that most will spend their entire working lives in - and as such an incomparable medium for learning. Indeed, certain skills cannot be learnt to the level of independent practice without being performed under supervision in a clinical setting. For example, I supervised a number of foundation doctors performing lumbar punctures whilst working on a neurosurgical ward. Following observation of a number of successful procedures my colleague had the confidence to perform the procedure without supervision, furthermore I had confidence in my colleague’s abilities - no number of simulation sessions could provide this. On the other hand of course, clinical settings can be challenging both for the learner and teacher. Clearly the priorities lie with providing safe and high quality care to the patient. This can be time consuming and also limit the role of the learner. Whilst supervising an elective student in a remote health post we had several critically ill patients. Resources were limited and much of my time was taken up providing care to the patient. All actions were time critical and providing quality teaching was impossible. Furthermore, (most likely due to stress), simple tasks which I had given to the student were not performed as quickly as I had anticipated and I regrettably had to abort their learning experience and take over the task myself. However, I received excellent feedback from the student on their learning experience and there is no doubt that observing such emergency situations is a critical first step in learning how to manage them.

Conclusion

My appreciation and understanding of a number of teaching techniques has developed considerably since first enrolling in the Clinical Educator Programme (CEP). I understand that for myself “Learning to Teach” has largely been experiential learning and this may explain why Educational Theory leaves me a little cold. Nevertheless I now recognise the importance of structure in formal teaching sessions and have made some headway towards better fulfilling the role of facilitator. The CEP has provided the tools with which to analyse my teaching technique and distill my own ideas into a more formal academic context. I now recognize that to progress to more ambitious teaching roles ongoing development of my understanding of educational theory will be increasingly necessary.
References


Appendix (i)

Examples of Feedback from Bedside Teaching

“Had excellent feedback from medical students, who were keen for more training”
– FY2 Bedside teaching programme organiser

“Excellent bedside teaching session for group of 6 medical students. Pitched at right level. Facilitated good participation by the whole group with individual feedback. Well organised, confident manner and good coverage of relevant surgical topics” – Medical Student

“This was an excellent session covering a good range of topics – one of the best teaching sessions I’ve had.” – Medical Student – Surgical Abdomen session

“Really good teaching. Well Organised – variety of patient examinations. Very thorough + Very good at explaining” – Medical Student – Neurology Examination session
Appendix ii

REFLECTIONS ON MY STUDENT/TRAINEE FEEDBACK FROM SSC2a

1) What seemed to go well in this session, and why?

- My own enthusiasm for the topic was successfully communicated to the students who kindly referred to my guidance and teaching as “Passionate” and “Enthusiastic”. The students also reported that this was combined with “good encouragement” which “reflected positively on us as a team” and kept them motivated (“keep us motivated”) throughout a 2 month period of focused, academic work on a single topic which had potential to become monotonous and boring. The use of clinical cases and photos from my own experiences on various expeditions was particularly key in this respect and also demonstrated the practical relevance of the academic papers we were analysing.

- I was away for the start of the course and was pleased that my students felt that my email communication with them had provided sufficient support in the early stages;
  - “and despite being away on an expedition during October, gave us enough information and aims to keep us motivated and keep us going throughout this time”
  - “Although he was away for a bit at the start of the project he was still able to give us the information we needed to go on allowing the project to keep moving forward.”
This was facilitated by a short list of references which allowed the students to begin to both gain an understanding of the topic and explore various options with regards to the final focus of their website. In many ways this made our first meeting far more constructive as the students already had a grasp of the topic and a number of ideas which I could work with.

- Due to busy schedules we were not always able to meet at a regular time. I continued to use email support as a means to stay in touch with the students and guide them in the project. This appears to have worked well and allowed questions and queries to be addressed in a timely manner.
  - “Very good at responding to any questions or queries about anything.”
  - “always available and able to offer guidance”
  - “Whenever we asked him for help between meetings, he would ensure that he replied to us quickly.”

- High altitude medicine is a specialist topic which requires a good grasp of human physiology. As such the topic potentially stretched the knowledge base of year 2 medical students. Furthermore this was the students’ first experience of analysing academic literature and applying their knowledge of statistics. I was pleased that the students felt that I had managed to explain the topic clearly and also provide some assistance with their understanding of basic statistical methods –
  - “really good at explaining abstract concepts to us both about HACE and statistical analysis of papers.”
His extensive knowledge of and experience in our project field and statistics has been a wonderful asset to us this semester.
- He also explained things very clearly whenever necessary.

My selection of a topic which I had both practical (e.g. expeditions) and academic (e.g. Mountain Medicine Diploma) experience was key to my ability to explain concepts clearly. When explaining concepts I always try to use a rhetorical approach such that the students gain an understanding of the topic by answering various questions. This method engages students and provided the concept is not too advance is generally very successful. High altitude medicine was perfect for such a teaching technique; The students had already studied human physiology and as such were able to apply this knowledge to successfully grasp the key concepts involved.

- This was my first experience of providing guidance for a project rather than more didactic teaching (e.g. bedside teaching). As such I was acutely aware of the challenge of ensuring I was a facilitator rather than a team leader. In this respect I was lucky to have such an enthusiastic and motivated group of students. Nevertheless it was pleasing to hear that the students felt that I had successfully fulfilled my role –
  - “managed to provide us with a good amount of support, without doing all the work for us.”
  - “really good at pointing us in the right direction for papers to read”
  - “He gave us a lot of assistance at the beginning of the project and gradually stepped back, allowing us to take complete control.”
  - “He lets the group take the project in the direction we want, but is ready to provide guidance and direction when needed.”

As described by one of the students my technique of tapering support with time and in response to the students’ ability seemed to work well.

- I do not believe that hierarchy in medicine is an asset. This is especially true in an educational setting. I was very pleased that students found me “easy to talk to”, “down-to-earth”, “very easy to work with.....bounce ideas off ..... discuss ideas and concerns regarding the project or even coursework”. Furthermore, I enjoyed working with the students and am pleased that the students also enjoyed working with me – “I really enjoyed working with Nick”, “Nick has been an absolute pleasure to work with.” This was achieved through teaching in a small group over multiple sessions such that I could have a rapport with everyone in the group.

2) What could be improved in this session, and how could these changes be made?

The students’ feedback does not provide any direct suggestions for improvement of the sessions. This in itself is a key area for improvement as far as I’m concerned. I clearly needed to stress the importance of providing constructive criticism in the feedback. Perhaps the students did not feel comfortable doing this. However, the feedback was anonymous and as such human factors which often hinder constructive criticism were removed. It therefore seems unlikely that these factors played a role. Perhaps it is necessary to make constructive criticism an integral part of the course or even the mark scheme. But on the other hand I was impressed with the volume of feedback received from the students. May be providing constructive criticism is more difficult than providing generalised complements and was therefore avoided.

Several comment that I was away for the first couple of weeks of the course. Whilst they suggest that they were adequately supported during this period they clearly noticed my
absence and we may have been able to explore topics in more depth if I had been able to be present from the beginning of the course.

None of the students comment on the group dynamic. As is inevitable in a group some students were more vocal than others. Furthermore whilst an adequate volume of work was attained by all there were clearly individuals producing more content than others. It is very difficult as a tutor to accurately gauge this and even more challenging to know when to intervene. Each student presented an analysis of at least one paper and this provided an opportunity to provide immediate critical feedback; ensured that every student had completed a certain level of study and spoken for a reasonable time in front of the group. However, I did not provide personalised written feedback on these sessions. This would have provided an opportunity for private feedback for each student away from the group. Such feedback could have been more personalised and critically constructive.

I very much relied on the students to direct the sessions and this was the nature of the module. However, at times I think it would have been more beneficial for me to have structured the sessions. I particularly found it difficult to provide constructive criticism on the final website and then present it to the group in a coherent manner without directly criticising someone’s work in front of the group. I’m not sure how to avoid this but more preparation on my part would probably have led to more fruitful and constructive remarks. We may have also been able to address more questions during the sessions rather than relying on email communication.

3) **How could your students’ / trainees’ feedback, and any intended improvements to the session, be communicated to them and to your colleagues, (eg put in a study guide or annual report to Module Organiser)?**

The students’ feedback is already available to myself, the course organisers and students in an anonymous form via EMEC. Furthermore, I completed a course feedback form which was sent to the course organisers. However, the students, myself and the other tutors did not receive any summary of the feedback we had provided or details of any changes brought about by our feedback. Perhaps this will be placed in the SSC2A study guide next year. This would be the most appropriate place for such a summary as it is easily accessible. It would also ensure that the feedback from the year before was successfully incorporated into next years course thereby completing the feedback cycle.
Markers comments

“Thank you for submitting reflections on feedback which I have reviewed today.

Generally we ask for a set of three separate pieces of work to ensure a variety of feedback comments from different groups of learners. You have however reflected deeply on comments obtained over this module and in view of this I feel as a combined piece of work this is acceptable as a submission towards CEP levels 1 and 2.

Your own enthusiasm for the subject comes out in this document along with the comments from your students who have written far more detailed feedback comments than some tutors get—a fact that you have picked up on in your discussion. You appreciated the difference of facilitating this type of module as opposed to other clinical teaching which you have undertaken and I completely agree that this transition appears to have successful in light of some of the comments. Your own comments about the lack of suggestions from your learners for improvement is interesting, and truly reflective, which is great. You have also seriously considered changes which you could make or suggest for the future and I hope as you say this is acted upon for future years.

Overall I am happy to accept this work towards completion of CEP.”
**Appendix iii**

**Reflective Marking – Self Directed Module**

**Clinical Educator Programme**

**Marking Module Feedback**

Thank you for marking the year three cleanliness champions essays and providing feedback. Please find below some feedback on your marking.

You should soon receive a certificate of completion of this module.

Please do not hesitate to contact us should you have any further questions.

*The Clinical Educator Programme Team*

<table>
<thead>
<tr>
<th>What went well</th>
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<tbody>
<tr>
<td>Very well Done.</td>
<td></td>
</tr>
<tr>
<td>You have given the student’s very good constructive feedback, all the students can go back to their essay and improve it substantially with the comments.</td>
<td></td>
</tr>
<tr>
<td>Usually staff focus their feedback on students who are struggling, you have given equal feedback to students that have clearly passed and are pushing them to think deeper and more critically.</td>
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<tr>
<td>You have shown throughout the feedback that you have clearly read it and acknowledge their thoughts using quotes from their essays. This is very powerful as students appreciate that you have really taken the time to mark the essay.</td>
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<table>
<thead>
<tr>
<th>What could be improved</th>
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<tbody>
<tr>
<td>Nothing – this is fantastic feedback for all the students that they can work with. Thank you from the students.</td>
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</table>
SELF REFLECTION on OBSERVED TEACHING SESSION

Please think back over this teaching session to consider the questions outlined below.

The first four questions each refer to one of the ‘professional values’ (V1-V4) required by the UK Professional Standards Framework (UKPSF) for teaching and supporting learning in higher education. We have provided our own interpretation of each question to help you think about how you have demonstrated each value. The fifth question is not drawn from the UKPSF.

The reflections you enter in the boxes below are for your own purposes and they will also help inform the reflective assignment, which is part of the Level 3 CEP. Please remember to include examples.

<table>
<thead>
<tr>
<th>Question 1 (V1)</th>
<th>Did you respect individual learners and diverse learning communities?</th>
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<tbody>
<tr>
<td><strong>Our interpretation</strong></td>
<td>This focuses on how you may have incorporated activities, actions and approaches in your session which were inclusive of individuals, or groups, across a range of backgrounds such as ethnicity, faith, social class, sexuality, gender, age. It is about demonstrating that you value and can work effectively with, and within, these diverse ‘communities’.</td>
</tr>
<tr>
<td><strong>Enter your reflections</strong></td>
<td>It is probably not unreasonable to reflect that Edinburgh medical students represent a fairly homogenous group in which diversity is existent but rarely challenging, c.f teaching first aid in lay communities in developing countries. Nevertheless the importance of ensuring all are included is important. It is also important to help all to feel equally valued in the sessions. Simulation sessions provide ample opportunity for a tutor to involve students and by working round a group systematically students are easily provided equal opportunities to perform and reflect.</td>
</tr>
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<td></td>
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<tr>
<td></td>
<td>“I felt that you involved everyone which was great – including the observers each time around in the group discussion. You wondered if this then meant that those who had been in the hot seat did not get enough chance to debrief themselves which may be true. All groups asked you lots of questions as well which is great – it shows that they felt you were approachable and know what you are talking about”</td>
</tr>
<tr>
<td><strong>Question 2 (V2)</strong></td>
<td><strong>Did you promote participation in higher education and equality of opportunity for learners?</strong></td>
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<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Our interpretation</strong></td>
<td>The focus here is on how you may have helped engage all the learners in your session by taking account of their differing levels of experience and individual learning styles. As for V1, it is about demonstrating that you value and can work effectively with all learners, since each has individual strengths and weaknesses.</td>
</tr>
</tbody>
</table>
| **Enter your reflections** | Providing feedback to medical students when their performance is poor is a critical skill of a clinical educator. On the one hand, repetition of such errors will (in the not to distant future) lead to direct harm of patients, whilst on the other insensitive feedback will not only fail to convey the key learning points successfully but may lead to dissatisfaction, loss of enthusiasm and most importantly loss of confidence.  

**Often students can identify their own mistakes and this is the best form of feedback. Where this is not possible I find a Socratic discussion most helpful.**  

The 3rd Sim group gave IV fluids to a patient with pulmonary oedema – a critical error. However, through the methods discussed above the students were able to tease out their errors and learn an invaluable point for their future practice.  

“The third group was interesting-I think you dealt with them really well when the scenario had not gone well” |
<table>
<thead>
<tr>
<th>Question 3 (V3)</th>
<th>Did you use evidence-informed approaches and the outcomes from research, scholarship and continuing professional development?</th>
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<tbody>
<tr>
<td>Our interpretation</td>
<td>This focuses on your use of sources of evidence (e.g., CEP workshops, clinical or non-clinical CPD, your reading) to inform your teaching and learning practice. Think about how you used these to enhance both the practice of your teaching and the quality of the learning experience. This value advocates the importance of engaging in professional development to enhance teaching or learning-support activities.</td>
</tr>
<tr>
<td>Enter your reflections</td>
<td>ALS + Dip Mountain Medicine + previous experience of the importance of human factors in emergency situations particularly outside of the NHS setting where I have been required to lead such situations. Most important were previous experiences in Ethiopia leading an obstetric cardiac arrest, working in Papua New Guinea with snake bite victims and working in remote environments on expeditions – most notably leading a prolonged evacuation over glaciated terrain. Such experiences alongside simulation training which I have attended as a student provided the backbone of my focus on human factors rather than medical facts – which whilst vital are far easier to attain and perfect.</td>
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<tr>
<th>Question 4 (V4)</th>
<th>Do you acknowledge the wider context in which higher education operates, recognising the implications for professional practice?</th>
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<tr>
<td>Our interpretation</td>
<td>We see two interpretations of this. One is that you need to be alert to local or national issues that may be impacting on your, or your profession’s, teaching practice. If this is your interpretation, you would need to demonstrate that you are aware of how your cultural or legislative context may influence your teaching practice. A second, though complementary, interpretation is that the quality of teaching of medical students has a significant and wide-ranging impact on the medical profession with implications for patient safety, the ‘image’ and role of each specialty etc.</td>
</tr>
<tr>
<td>Enter your reflections</td>
<td>How to appropriately respond to emergency when a junior doctor, practicalities of who to call and when – I used telephone role play to demonstrate these points – students often called inappropriate specialties or grades either to early or too late into the scenario – via role play this more subtle aspect of the scenario which is rarely discussed at medical school was demonstrated and later discussed within the group after the simulation was over.</td>
</tr>
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</table>

| Question 5 | How might aspects of this particular session impact on your clinical practice? You might comment on how your preparation of the session enhanced your knowledge of the subject, or perhaps feedback from the students highlighted something which may change your practice. |
| Enter your reflections | Giving junior doctors a little more time to manage patients/develop management plans before providing my advice, thereby encouraging their own development in this skill. I believe that as I develop more confidence and experience this will be an easier target to attain. This is because I will have a better understanding of when I need to step in to ensure quality and safety of patient care is not affected by the doctor’s/student’s learning experience. Currently I am (understandably) over cautious. |
**Summarised Teaching Log (2010-2016)**

- **UK Mountain Medicine Diploma Advanced Course**  
  Postgraduate 15-minute lecture with discussion  
  (2016)

- **Tutor for BMC mountain medicine symposium**  
  Interactive seminars to lay audience over 2 days  
  (2016)

- **Daily altitude talk, Himalayas, Nepal, IPPG Rescue Post**  
  Lecture followed by questions and discussion, daily for 2 months  
  (2016)

- **First Aid Training, Dole Lodge Owners, Gokyo Valley, Nepal, IPPG**  
  Single Seminar Session with translators  
  (2016)

- **Medical Student Elective Mentor, IPPG Rescue Post, Himalayas**  
  Clinical and research supervisor for medical elective – 10 weeks + on going publication supervision/collaboration  
  (2016)

- **Taught on ILS course**  
  Teaching observation and feedback  
  (2016)

- **Undergraduate infection control reflective essay module**  
  Marked and provided feedback on 6 undergraduate reflective essays  
  (2016)

- **An unusual case of HACE? Haslam N¹**  
  Postgraduate educational reflective piece with video and audio footage  
  (2015)

- **Wheels on Kilimanjaro Haslam N¹**  
  Postgraduate educational reflective piece  
  (2015)

- **Edinburgh University CTA**  
  Bedside teaching, seminars & pastoral support for 4 students over a period of 2 years  
  (2013-2015)

- **Medical student research appraisal module tutor (SSC2A)**  
  8 seminar sessions over a period of 2 months alongside remote assistance via email  
  and marking + feedback on final website  
  (2014)

- **Taught on ILS course.**  
  (2014)

- **Bedside Teaching Programme for Edinburgh Medical Student**  
  5 sessions of clinical undergraduate bedside teaching  
  (2013)

- **Assisted with Fourth Year Mock OSCE**  
  (2012)

- **Educational video**  
  Used by Herbert Wertheim College of Medicine at Florida International University  
  (2011)

- **Volunteered as a teacher on RESTART.**  
  Basic Life support teaching to school children (13-15 years old), 3 x 2 hour sessions  
  (2010-2012)
Clinical Educator Programme  
Small Group Teaching Workshop  
Learning Outcomes

By the end of this workshop, participants will be able to:

- Recognise advantages and disadvantages of small group teaching and identify how to maximise learning

How am I going to implement this into my own practice?

What exactly will I do?

As a CTA I have numerous opportunities to practice small group teaching. I recognise that for less confident students small group teaching is an opportunity to encourage engagement and discourse. I currently naturally centre my teaching on the most capable of the group. I will try to centre my teaching further towards the least capable ensuring they understand the key principles of the session whilst trying not to isolate them in the group as the “one who isn’t following”. This can be achieved by summarising learning points during the session.

- Select and use appropriate teaching techniques, resources and aids

How am I going to implement this into my own practice?

What exactly will I do?

Currently I mainly utilise bedside teaching. I want to do more small group teaching in a seminar like fashion with out patients. This will involve slide shows on a laptop and interactive cases. I work with small groups (3 students) and often single out an individual, which sometimes stifles discourse. I will try asking questions to the group as a whole more and asking them to discuss a question amongst themselves as a team. This should hopefully encourage engagement and promote pier to pier learning. By using problem based learning around clinical cases and pier to pier discussion I hope to improve group dynamics and encourage engagement.

<table>
<thead>
<tr>
<th>When will I start?</th>
<th>When will I review my progress?</th>
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Planning and Evaluating Your Teaching workshop

Learning Outcomes

By the end of this workshop, participants will be able to:

- **Develop a good educational environment and help students learn within that environment**
  
  How am I going to implement this into my own practice?
  
  What exactly will I do?

  When performing bedside teaching I will ensure that there is enough space for all students to have good views of the patient and myself. I will then ensure that there is a room in which to debrief students and discuss the previous case.

  When will I start?  
  (date deleted)  
  
  When will I review my progress?  
  (date deleted)

- **Write objectives for a teaching session in the context of a basic session plan**
  
  How am I going to implement this into my own practice?
  
  What exactly will I do?

  When using slideshows as teaching tools my opening slide will contain 3 objectives.

  When will I start?  
  (date deleted)  
  
  When will I review my progress?  
  (date deleted)

- **Select appropriate methods in order to undertake an effective evaluation of your teaching**
  
  How am I going to implement this into my own practice?
  
  What exactly will I do?

  I will provide students with a feedback form which will have three questions concerning what they liked, what to improve and one thing they learnt. Through evaluating this feedback and reflection on my teaching sessions I aim to undertake effective evaluation of my teaching.

  When will I start?  
  (date deleted)  
  
  When will I review my progress?  
  (date deleted)