

ELECTIVE (SSC5c) REPORT (1200 words)

A report that addresses the above four objectives should be written below. Your Elective supervisor will assess this.

1) Describe the pattern of disease/illness of interest in the population with which you will be working and discuss this in the context of global health.

What are the current challenges facing Medical Education, in the UK and globally, and how can Innovation solve some of these issues? Describe the approaches and technical issues involved.

Our focus was based around the difficulties and potential of change within the UK and globally. Within the UK we knew of the potential issues and challenges that we were facing with regulation, whether of technology and the data protection issues or the GMC and NHS regulatory bodies. Abroad, the difficulties arise because of the health education protocol in most of the global countries are constantly evolving. Additionally, one must consider that there is a very limited training program due to the sparse level of hands-on experience that is available to many students and medical and surgical trainees. Interestingly towards the end of the elective the LANCET commission on global surgery was published that reflected many of our findings and ideas. We knew that to truly tackle the global surgical crisis it would require a method that would be accessible. That would require a global platform that builds on the internet to deliver world leading education. Of course we knew that this would be fraught with difficulties. There was significance in whatever technology we decided to use had to be reliable and tried and tested, and easy to use and most importantly inexpensive and accessible, and using a platform that could be easily implemented anywhere in a world with an internet connection. Some of the difficulties would be the following:

1. The cost of hardware such as servers, storage devices and networking equipment, not to mention the power to run and cool them and the space required to house them.
2. The cost of database administration, OS upgrades, software license fees, etc. These can run nearly 50% of the initial system cost – every year!
3. Recurring costs for maintenance contracts.
4. The costs of in-house IT staff or an IT consulting company.
5. The costs of a database administrator.
6. The costs of integrating with legacy and home-grown applications.
7. The costs of customizing, adapting and branding an in-house system.
8. The costs of testing and piloting all new applications that are brought into the system.
9. The costs of training the system administrators and keeping their skills current.
10. The costs of maintaining testing centers and dedicated testing and training devices.

There was significance in whatever technology we decided to use had to be reliable and tried and tested, and easy to use and most importantly inexpensive and accessible, and using a platform that could be easily implemented anywhere in a world with an internet connection. One of the costliest drains on a training budget is the licensing and maintenance of an on-premise system. This cost is

practically eliminated with a cloud-based solution, along with the headaches of hardware failure and other unexpected expenses.

2) Describe the pattern of health provision in relation to the country which you will be working and contrast this with other countries, or with the UK

What are the major educational themes of Medical Education in the UK? How does this differ to those of other countries? Describe the overall impact of such differences.

The Lancet Commission on Global Surgery revealed the shocking shortage of surgical expertise across the world. As part of our findings we showed that technology can be a helping hand in the fight for 5 billion people's need for safe surgery. We knew that through technology and educational experience one could apply the experience and work in live streaming and medical education to help ensure that high quality education can be delivered regardless of location.

The Lancet commission on global surgery showed that currently there are gross disparities in access to safe, affordable, surgical care worldwide, and an alarming lack of global focus on widespread provision of quality and safe surgical services. Five billion people around the world do not have access to safe, affordable surgical and anesthesia care when needed. Out of the 313 procedures performed each year, only 6% are done for the poorest 1/3 of the world's population.

Surgical conditions represent approximately 30% of the global burden of disease. They showed that Surgical care is needed across the life course (from birth to death), across all levels of care (from prevention to palliation). Additionally within all disease burden subcategories. We know that surgery has proven to be a very cost-effective intervention, and failure to treat surgical conditions threatens to significantly compromise the economic productivity of countries. Widespread integration and scale-up of surgical care around the world is necessary to reach new targets for Universal Health Coverage, the Sustainable Development Goals and creation of resilient health systems.