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Creating an Innovative Inter-professional Healthcare Module that Engages Learning and Teaching in Public Health: A 'Flipped Classroom' Model

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Abstract

Background: In order to engage undergraduate healthcare students in the subject of Public Health an innovative approach is required. The overall aim of the second year Public Health module was to offer students the opportunity to explore the concepts of promoting health and wellbeing in relation to contemporary public health policy in order to inform future care delivery.

Method: A public health module was developed using the 'Flipped Classroom' to address the presenting challenges with both theoretical content and the delivery schedule.

Results: An emerging structural model for a 'Flipped Classroom' approach to module learning and teaching was created.

Conclusion: This discussion will explore how the challenges were met through the development of a model based upon the 'Flipped Classroom' approach to learning and teaching.

Keywords: Learning; Teaching; Flipped Classroom; Public health

Introduction

How do you create an innovative inter-professional healthcare module using a 'Flipped Classroom' approach that engages learning and teaching within the subject of Public Health?

This was the task encountered in the second year of an undergraduate healthcare BSc (Hons) programme. The overall aim of the module was to offer students the opportunity to explore the concepts of promoting health and wellbeing in relation to contemporary public health policy in order to inform future care delivery. Within the module, students were expected to identify relationships between wellbeing & health inequalities, wider determinants of health underpinned with epidemiological and demographic data in regard to a geographic/service user population relevant to their own role. Students will also need to explore and demonstrate application of a range of health promotion models and approaches along with strategies to support behaviour change in their professional practice. The challenges faced in delivering this aim were;

- Successfully engage students with the complex nature of Public Health in a curriculum where the predominant emphasis is on acute care and clinical skills.
- Vast theoretical content over a tight 6 week delivery schedule.
- High student numbers across eight fields of healthcare professions
- Requirement to incorporate Inter-professional learning (IPL) to promote effective collaborative working skills to enable the provision of high quality patient centered care.

This discussion will explore how these challenges were met through the development of a model based upon the 'Flipped Classroom' approach to learning and teaching.

Background

Over the past 50 years there have been significant advancements in the uses of technology. As a result, nursing has seen a rapid uptake of technology to enhance care delivery. One use of technology is by enabling practitioner's easy access to key education and training that is integral to improving patient care. The Framework for Technology Learning [1] provides a strong lever for commissioners and education providers to embed 'high quality technology enhanced education' within the learning experience promoting a strong emphasis on a blended approach, which is both effective and efficient. Promoting a blended approach to education and training is responsive, demands value for money as well as an enabling a workforce that is flexible, adaptable and fit for purpose within their professional roles. For Higher Education Institutes (HEI), providing both pre and post registration healthcare education programmes, the emphasis on providing effective contemporary but efficient education addressing multiple avenues of enquiry has never been stronger [2].

It is worth noting at this point that 'blended learning' is often used as the umbrella term referred to when utilizing technology. There are however, vast variations in design under this guise therefore there is a requirement to provide clarity and a definition of the terms. A well cited definition of blended learning by is "the thoughtful fusion of face-to-face and online learning experiences" [3]. Blended learning ranges from the simplistic use of a power point presentation to the more complex development of subject material delivered via an electronic

platform. A key element of the engagement and retention to any form of blended learning is the effective use of in-class activity [4].

Flipped Classroom

For the purpose of this discussion, the approach to blended learning will focus on the complex delivery, with theoretical content delivered via an interactive electronic platform aligned with in-class activity to enable consolidation and safe application of the theory learnt. In recent years this approach has been referred to as the 'Flipped Classroom' approach [5].

In contrast to a traditional approach of face-to-face lecture followed by a seminar and then self-directed study the 'Flipped Classroom' approach promotes the front loading of theoretical content as preparatory independent study. In essence the 'homework' becomes the in-class activity. The learning therefore is more personalized and can be adapted to meet the needs of the student, thus allowing for greater satisfaction and deeper learning.

The majority of Flipped Classroom approaches make extensive use of online and electronic learning resources to deliver the theoretical content required prior to face-to-face contact with a tutor [5]. As suggested by McGivney-Burelle et al. there is an assumption that learning basic facts and definitions requires less support [6]. One of the design elements of this approach is that in-class activity builds upon the theoretical underpinnings of the online resource materials. Thus, promoting the higher acquisition of skills in analysis, synthesis and evaluation with guidance support and feedback from peers or tutor during the in-class activities [5,6].

Incorporating the 'Flipped Classroom' approach within Higher Education curricula is a relatively new and innovative consideration, ever expanding with the advancement of technology. Equally engaging with differing approaches to learning and teaching necessitates motivation and self-direction by the individual. Previous exposure of didactic learning environments means promoting preparatory self-directed learning requires different strategies to encourage engagement. It was therefore imperative that the Flipped Classroom model considers a range of learning and teaching methods to engage students.

A 'Flipped Classroom' Model

The model depicts the implementation of five online interactive educational packages in relation to the in-class activity, the inter-professional requirement and the summative assessment.

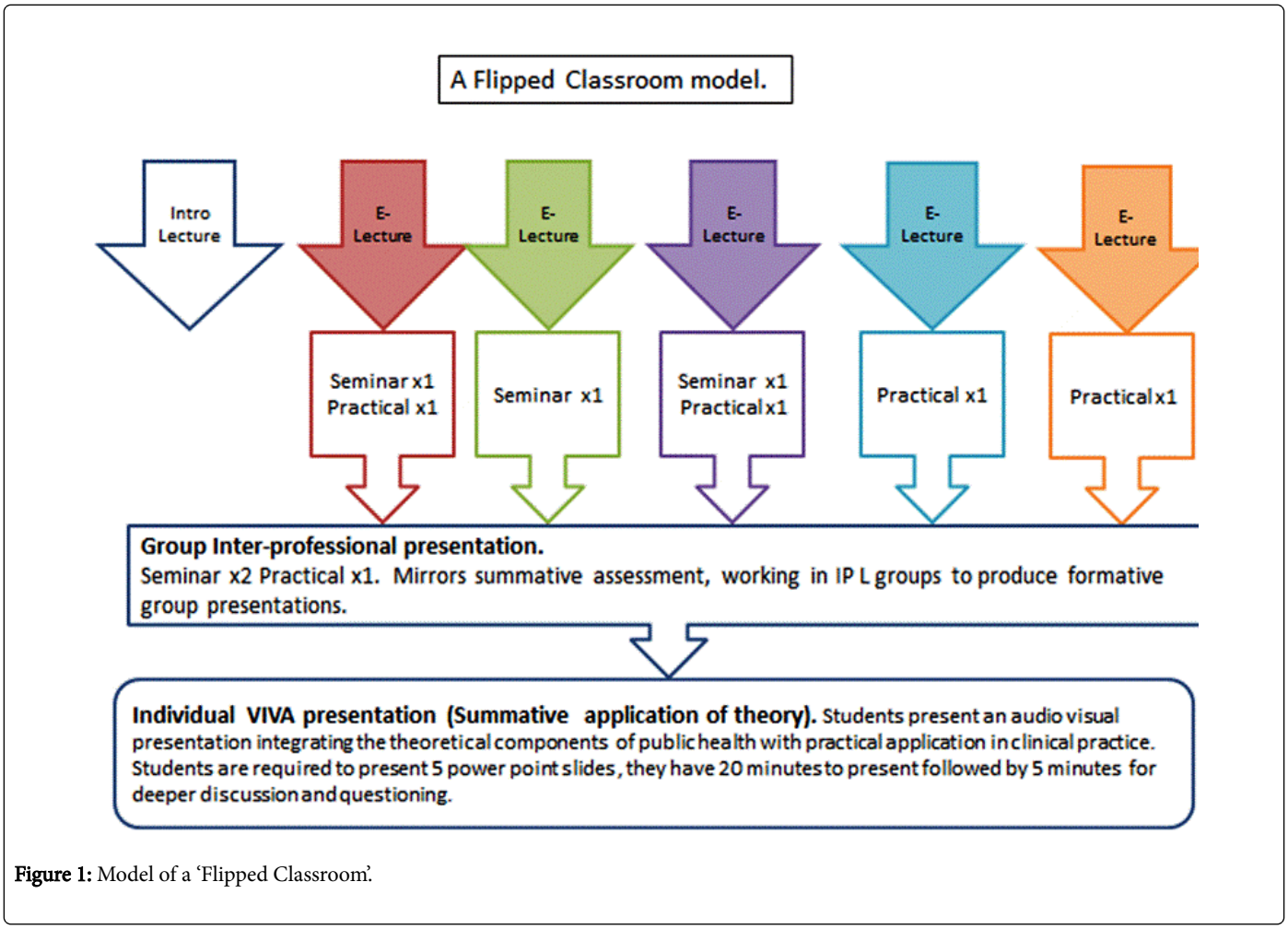

Figure 1: Model of a 'Flipped Classroom'.

In total there were six lectures, seven seminars and five practical's. The introductory lecture is delivered face-to-face in-class. The five online resources replaced the remaining five traditional lectures within the module. Reflective of the 'Flipped Classroom' methodology these were completed prior to the in-class active learning sessions (Figure 1). The online interactive educational packages were developed using a

software package that enabled activities such quizzes, drag and drop, timelines and reflective activities to be embedded within a power point presentation of the theory. In addition to the theoretical content and activities there was also audio recordings and useful web links inserted in an attempt to engage multiple learning styles.

Embedding technology into the curriculum requires careful consideration in pedagogical design. In particular online and in-class activity should be dependent on the knowledge to be conveyed, the task at hand and the desired outcomes [4]. Uni-professional seminars and practical sessions were used as the vehicle to deliver the in-class activities. The content of the sessions was specifically aligned to the theory conveyed in the online interactive educational packages [7].

By completing the theoretical components and developing the knowledge base around Public Health priorities, epidemiology, demographics, health promotion, behavior change and their professional role within Public Health prior to the in-class activity enabled the student's to deeper explore the concepts and practical application. The subsequent seminars and practical's challenged the students' values & beliefs against their new found knowledge of Public Health. A range of methods such as using art to illustrate their personal constructs of health, IT skills to find and extract statistical data to build a community profile, identify and apply the usage of public health resources and role play to apply the principles of behavior change where utilized to enable the experience of these complex tasks in a safe environment prior to their clinical experience.

As identified earlier, there was a requirement to embed IPL within this model. This was achieved by allocating three inter-professional sessions consisting of two seminars and a practical session. Using a range of patient narratives, mixed professional groups were asked to work collaboratively to produce group presentations mirroring the summative assessment criteria [8]. It was envisaged that the group feedback received would further inform the students in preparing their summative presentation.

In order to scaffold the learning the summative assessment was also constructively aligned to the five online interactive educational packages and successive in-class activity to facilitate the achievement of the module learning outcomes [7]. The requirement for the summative assessment was that 'the students would present an audio visual presentation, integrating the theoretical components of public health with practical application in clinical practice.' This would consist of giving an individual five slide presentation for 20 minutes with five minutes for deeper discussion and questioning.

Conclusion

As facilitators of learning and teaching it is our role to ensure that the expectations of the module are clear from the beginning. By creating a model to use as a framework to build upon enabled the explicit links between the online interactive education packages, in-class sessions and the summative assessment to be seen by both the students and staff alike. The vast theoretical content became manageable; offering an innovative approach to the students learning experience allowing flexibility and control which had not been adopted prior to this point in the curriculum.

Using the 'Flipped Classroom' approach enabled students to explore the concepts in greater depth. They were able to seek clarification and practically apply the theory in a safe environment enabling confidence and competence to grow prior to clinical practice. Likewise it encouraged collaborative IPL through the requirement of delivering a formative group presentation directly mirroring the summative assessment.

Current literature suggests it is evident that for those who embrace this approach to learning often display a strong sense of control over individual learning needs, have positive outcomes and report that the interaction with peers is constructed and focused. It is suggested that students realize their own accountability to individual learning and that it is greater than those experiencing traditional course delivery. By engaging with the advancing technology not only enhances graduate skills but increases employability by demonstrating flexibility, adaptability and being fit for purpose within professional roles.

Equally, we need to be mindful that the shift from learning in the classroom to self-directed study can cause anxiety and lead to potential disempowerment and disengagement. As facilitators of learning and teaching it is vital that the provision of support mechanisms is considered prior to implementation in an attempt to minimize diminished enthusiasm and resentment.

References

1. Department of Health (2011) A Framework for Technology Enhanced Learning. London.
2. Quality Assurance Agency for Higher Education (2013) UK Quality Code for Higher Education: Part B: Assuring and enhancing academic quality. QAA, Gloucester.
3. Garrison DR, Vaughan ND (2008) Blended Learning in Higher Education. Jossey Bass, San Francisco.
4. Abeysekera L, Dawson P (2014) Motivation and cognitive load in the Flipped Classroom: definition, rationale and a call for research. Higher Education Research and Development.
5. Bergmann J, Sams A (2012) Flip your Classroom. Reach Every Student in Every Class Every Day. ASCD and ISTE, USA.
6. McGivney-Burelle J, Xue F (2013) Flipping Calculus. Primus 23: 477-486.
7. Biggs JB (2003) Teaching for quality learning at university. (2nd Edn.), Open University Press/Society for Research into Higher Education, Buckingham.
8. Senior E, Telford M (2015) Using an integrated teaching and learning approach to deliver inter-professional practice in Public Health. Nurse Education Today 35: 1013-1015.