Title: Facilitators of learning: Conceptualisation and development of a tutor training course

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Rationale and aim

The academic and social benefits of peer learning are well documented across the literature with 'social and cognitive congruence' between peer tutors and student learners both playing an important role. Cognitive congruence is where peer tutors given their similar content knowledge and learning experiences can use language, draw on explanations or analogies and hence clarify content and concepts in a way that may be easier for students to understand (1,2). Social congruence on the other hand as the name suggests is when peer tutors and students have similar social skills enabling a more informal but effective sharing of learning needs, difficulties, and academic expectations (3). Indeed, peer tutors are more likely to create active learning environments that promote collaborative learning. However, with many peer tutorial programmes, there is often an assumption that peer tutors who have the required discipline specific knowledge also have the skills to effectively facilitate students learning. In South Africa, where many students have not been exposed to tutors and collaborative learning, training, and supporting tutors to be effective facilitators of learning is important.

The aim of the proposed research study is therefore to conceptualise, design and implement a training course to train tutors to assist students studying human anatomy and physiology. The key objectives of the course will be to provide tutors with the theory and practical tools required to effectively promote learning, group work and social inclusion. Subsequently, the tutor training course will be evaluated by examining peer tutor's motivation, teaching, and reflections on their experiences.

Processes / Methods

Study design

The study involved a mixed methods approach with both a qualitative and quantitative focus. Data was collected from evaluations which included Likert scales, which is a validated tool for the purpose. The study has received ethical approval from the Human Research Ethics Committee of the Faculty of Health Sciences at the University of Cape Town (HREC reference number 029/2022).

Recruitment

The position for peer tutors was advertised via email within the Department of Human Biology in the Faculty of Health Sciences at University of Cape Town (UCT). Fourth year students and graduates in occupational therapy and physiotherapy, 4th, 5th and 6th year medical students and graduates and postgraduate students and postdoctoral fellows in the Health and Basic Sciences from the University of Cape Town were eligible to apply for the position as they will be familiar with the anatomy and physiology curriculum. Postgraduate students in anatomy and physiology would have covered similar content within their undergraduate and current postgraduate degrees although this may have been at a higher conceptual and knowledge level. Applicants who achieved a minimum average of 65% for their undergraduate anatomy and physiology courses were eligible to apply. Twenty-nine students applied for the position and ten students were selected as tutors.

Tutor course accreditation

The Tutor Training Course was accredited as a non-credit bearing short course (HUB3018CE). All tutors received an official UCT administered course certificate and the course was captured on their official UCT transcript.

Tutor Training course

The Tutor skills training course was eight hours in duration. The first half of the training course which involved reflective exercises and role playing highlighted the role, qualities and skills required to be a good tutor, professional behaviour, organisational support and how to deal with critical incidents. The second half of the course was practical based and involved three exercises focused on tutors' knowledge base, communicative and social skills. The practical exercises were developed by three discipline specific experts who were lecturers in the anatomy and physiology courses. Following each exercise, peers in the group and the discipline specific experts provided constructive feedback. The details of the practical exercises are described below.

Practical exercise 1: *Presentation and communication skills*

Prior to the course, tutors received a topic, a rubric and were requested to prepare a 3 min presentation. The rubric detailed key techniques like explaining, eye contact, body language, visuals and questioning and the topic selected assessed tutors' ability to integrate both anatomy and physiology. Tutors presented the topic during the course in real time.

Practical exercise 2: *Descriptive and listening skills*

The ability to make students visualise concepts and processes is an important skill. In this section, one tutor (the descriptor) was provided with a picture depicting a lesion. The other participants in the group (the listeners) turned their back to the descriptor. Using the image provided together with a glossary of anatomical terminology, the descriptor used the appropriate terms to describe the size, shape, colour, and exact location of the lesion to the group. The listeners drew a rough sketch of what he/she thought the mark looked like, including where EXACTLY it is on the body.

Practical exercise 3: *Impromptu teaching*

Most often tutors are often required to explain content and concepts impromptu. While this is a skill even experienced lecturers may struggle with, it was important for tutors in this exercise to draw on techniques covered in the course. Prior to the course, all tutors were provided with six topics. On the day, each tutor drew a topic from a bag and was asked to immediately explain the concept in 2-3 minutes. By providing the topic beforehand we ensured that all tutors were familiar with the concepts but by randomly selecting the topic we could create an impromptu situation. Each member could elect to simply explain using words, draw or use both techniques.

Achievements

The rationale behind this research project challenged the assumption that peer tutors because they have sound theoretical knowledge of the subject, possess the skills required to promote learning. Using an inclusive approach to tutor development, in which lecturers are active co-participants, we developed a course that provides participates with the skills to

promote learning, group work and social inclusion. Here our goal was to develop an interactive course in which tutors and lecturers can slowly begin to change the traditional approach to tutoring, making tutorials more active and inclusive spaces of collaborative learning.

Indeed, based on the evaluation of the new Tutor Training course, the following themes emerged from open-ended questions.

Interactive and practical based learning

Peer tutors enjoyed the practical and role-playing exercises which boosted their confidence, promoted group work and constructive feedback among participants.

"Exceeded my expectations. I didn't see the practical session coming. Nicely done."

"The exercises were very helpful and boosted my confidence with explaining concepts to people."

"I enjoyed the role-playing the most because it gave us an opportunity to actually see different things in action and think about how we'd handle it."

Professionalism and programme expectations

Tutors appreciated the sessions focused on understanding a diverse student body and professionalism.

"I plan to interact with students professionally even though we are a similar age."

"I've already started to conduct myself differently (more thought goes into my appearance and what I would be reflecting to students by wearing something, etc). I have also started being more careful with the vocabulary I use with students- being professional and considerate of various words that could be offensive, while still being relatable to them."

Lecturers as facilitators providing constructive feedback

Tutors appreciated the sessions with lecturers as active co-participants.

"I appreciated being able to meet and chat to the lecturers or course conveners in this session as I could see what level I am expecting to learn the content and what they expect from us."

"I liked the break-away groups in the second session. I found explaining a concept to a smaller group with one facilitator less daunting than speaking to everyone. I also found the feedback to be more useful in a smaller group because we had more time to provide useful feedback."

Acquisition of new skills that could be applied when facilitating tutorial sessions

Tutors appreciated the sessions which encouraged them to practice the skills to effectively facilitate students learning.

"I also found the skill of prompting students with questions and ideas to help them answer their questions very helpful. It encouraged and challenged me to think about what I was asking them and how I was phrasing my questions. I feel like that was a good skill for me as I sometimes battle to put my thoughts into words."

"I also enjoyed learning about how to promote independent thinking and guide students to answers."

"I enjoyed learning about how to deal with different personalities and how to encourage teamwork."

Based on comments from the student evaluation on the tutorial programme, all the students indicated that 1) the activities planned by the tutor improved their understanding of the content, 2) the tutor was well prepared for the session and 3) the tutor explained the content in a manner that was easy to understand. Taken together, the peer tutorial programme has succeeded in not only providing students with the opportunity to acquire and clarify the content knowledge of a subject but has allowed students to develop and enhance fundamental lifelong learning skills.

Challenges

There have been several challenges to date during the COVID-19 pandemic. The original project was based on the fact that we would have Physically distance learning at UCT in 2021. In the Faculty of Health Sciences, given the low COVID-19 venue capacities it was not feasible to implement face-to-face practicals and tutorial sessions in all our undergraduate programmes. The Tutor Training course had to be revised and was aimed at training participants to become skilled in working with students online. Without face-to-face sessions, it was difficult to "break down barriers" between students in the pre- and clinical years, as well as between undergraduate and postgraduate students. Based on student evaluations, students found the online support sessions not conducive to promoting engagement. Tutors commented that the lack of visual aids made it difficult to explain concepts and content online and in chat rooms. Furthermore, working remotely also impacted building a strong community of practice amongst tutors which is important especially when starting a new programme.

Future activities

The impact of the Tutor Training course can only be assessed once tutors have had several opportunities to engage with the students and apply the skills gained during the course. At the end of the year a focus group will be conducted with tutors to gain a better understanding of their training needs, successes, and challenges.

Change strategy

The proposed tutorial programme is aligned with UCT's goal of reducing stigmatism and alienation by transforming the current curricula into one that promotes an ethos of shared learning. Besides the promotion of student success and the development of life-long learning skills, the programme will be pivotal in re-enforcing the knowledge of tutors such as senior students, postgraduates' students, postdoctoral fellows and graduates in the subject of instruction. From a social justice perspective, I would like to create a paradigm shift in curriculum design that includes a change in the learning ethos of all major stakeholders. This will involve students' and the tutors seeing themselves as co-learners and importantly as mediators driving this pedagogical change which is pivotal to the implementation of a socio-cultural model of learning. As the project is targeted at providing support to all students enrolled in anatomy and physiology courses in our department and Faculty, the system wide approach will ensure inclusion and equity. By embracing student diversity, I hope to create fluid and reflective curricula that promote learning while celebrating individualism and creativity. A long-term transformational goal is to create a learning HUB that will eventually be established as an institutional practice.

References

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