Breaking the isolation: Online group assignments

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Why was the idea necessary?

The COVID-19 pandemic forced educators to go online in a hurry in 2020 and adapt their teaching and assessment approaches. However, despite the urgency, teaching and assessment still need to remain constructively aligned, enforce learning, and be student centred while simultaneously developing 21st century graduate attributes and critical thinking skills. While interactive and collaborative learning is frequently cited as a good educational practice in the online environment, this learning approach is not without challenges for the student or the facilitator.

The approach that students need to work together to learn is supported by Piaget, Dewey and Bruner (quoted by Jackman[1]). They theorised that learning is a social and active process and knowledge is constructed through interaction. Medical education is based on interaction with patients, the environment, peers and near-peers, and facilitators or experts. The isolation associated with lockdown due to COVID-19 disrupted this engagement that is pivotal to medical education and student learning. However, despite the enforced quarantine, all students need to develop the skill set to work, engage and collaborate as global and digital citizens. Effective medical care requires healthcare professionals to work in multi- and inter-professional teams. This emphasises the need to provide students with learning opportunities, even in the virtual environment, to work in small but diverse groups.

Collaborative learning occurs when small groups of students work together and support each other to contextualise and learn. It is not merely students talking to each other, or video-conferencing, while each does his or her individual task, or helping each other complete the group assignment. Rather, collaborative learning is an approach that gives students an opportunity to engage and deliberate, develop socialised intelligence, take responsibility for their own learning and thus become critical thinkers.[2,3]

Team-based learning promotes active group learning while decreasing facilitator dependence, which was an important consideration, given the added clinical workload that healthcare workers faced due to the COVID-19 pandemic. Peer-evaluation skills are not typically taught to students,[4] but can have a positive impact on student behaviour and attitudes towards group assignments.[5] Peer evaluation is also cited as a means of reflective learning as it provides an opportunity to monitor, evaluate and adjust their overall skills.[5] Numerous studies provide persuasive evidence that peer-evaluation scores were comparable to tutor scores or test grades, and should be used as part of the assessment process. Peer evaluation reinforces and assesses a multitude of skills, while individual test grades only evaluate students' knowledge, rather than student involvement, active listening, critical assessment, and interaction.[5,6]

What was tried?

As part of programmatic assessment,[7] medical students in their third-year Pregnancy and Neonatology rotation were divided into 24 groups. Groups were assigned rather than formed organically. This approach of group allocation was intended to introduce students to new or alternative peer perspectives.

The contextual concern was that South Africa is failing to make remarkable improvement in achieving Sustainable Development Goals (SDGs) pertaining to maternal and child health. Problems are related to individual, social circumstances and public health issues. Therefore, an assignment was drafted to include this challenge and force students to think critically about the implications, current situation and consequences.

Each group was assigned a three-part group project.[8]

The learning outcome of the first assignment focused on creation of a novel, engaging, creative solution to problems identified in the video, *Why Did Mrs X Die?*[9] The format of the assignment was open to the students; however, traditional essays and PowerPoint presentations were prohibited.

The second assignment focused on understanding evidence-based medicine. Groups selected a relevant review from the Cochrane database and interrogated the topic further. They then compiled an e-poster including an interpretation of a meta-analysis with a 5-minute narration.

The final group assignment was based on peer-led teaching. Each group was assigned a clinical case and questions that incorporated themes covered in the preceding week. The assigned group was tasked with facilitating a dialogue on the online discussion board.

Groups were required to provide evidence of communication and collaboration. Assignment 1 and 2 were peer-assessed. Each group assessed five other groups' submissions. Assessment was based on a three-point Likert scale rubric developed in consultation with the students, based on three critical factors, namely, identification and expected solutions, novel solutions, and creativity of submission. Peer evaluation included a score and comments. Assignment 3 was adjudicated by the facilitators of the course.

The assignments were intended to achieve the following:

1. teamwork/collaboration
2. information and communication technologies (ICT)-skill development
3. flexible, creative, critical thinking
4. knowledge application, integration, self-directed learning
5. visionary leadership
6. fun while learning.

Lessons learnt

While all groups accomplished the tasks, it was evident that students are much more task-focused and able to engage in co-operative learning where tasks were divided and completed, rather than embracing true collaborative learning.

Students voiced their preference to choose their own groups. This was unsurprising as students keenly desire to associate with fellow students of similar drive, stamina and performance. However, as part of the hidden curriculum, they proved that they were able to navigate issues of working with unfamiliar colleagues (a real-life simulation), dealing with absent or poor-performing colleagues, team roles and differences of opinion.

According to Yoon *et al.*,[6] the optimal group size is 6 - 8 students. In future assignments this should be taken into consideration to optimise group dynamics. Students further proved that despite challenges such as limited data, entry-level digital devices, and inconsistent electricity supply, they were able to communicate constructively using digital platforms such as Blackboard, WhatsApp and Google Docs.

These assignments demonstrated that greater involvement of a facilitator is required to foster collaborative learning. In future, role allocation will be done within the groups, including the appointment of a 'project manager' who provides regular updates to the facilitator. Although the purpose of the activity was outlined, our competitive and result-driven students did not always see the benefit of the process of engagement and brainstorming with their peers. They focused more on product and less on process; therefore, facilitators should provide clear expectations and examples of how students should collaborate. Progress reports, discussion forums and virtual conferences that can be accessed by the facilitator can be considered to encourage and guide collaborative learning.[3,10]

Groups were more attentive to assignments 1 and 2 which carried a grade rather than assignment 3 which was part of formative assessment, supporting the notion '*if it is not graded, it will not be done*'. Groups received a mark rather than individual marks, which may have rewarded underperforming students. In the future, a three-tier assessment should be considered – self, individual and group. Groups can peer-evaluate their co-workers, and groups can anonymously evaluate each other according to rubrics, a standardised action to reduce bias. This approach to evaluation may keep students engaged when they are tempted to drift. The rubric should be more focused, especially on preparation for the activity, peer participation, peer contribution overall to the group, and respect and sincerity towards the group.[6]

What will I keep in my practice?

In the future, the class of 300 will be divided into groups of 5 - 8 students, with role allocation determined at the outset. The need for a facilitator for each group will be explored further; however, resources are limited. The focus will be on self, anonymous individual and group assessments, with further revision of the rubric used. Future assignments should compel students to reflect and act on the peer feedback received and incorporate it in a subsequent draft. This process of feedback develops skills of communicating in a professional manner, developing autonomy of feedback, and resilience. We live in diverse communities; hence the effect of culture on peer feedback needs to be explored.[5] To develop the students' metacognitive skills, reflection during the entire three-tier process will be included from the onset.

What will I not do?

We will not revert to individual- or facilitator-assessed assignments. We believe that working with diverse peers contributes to the learning process and therefore will not accede to requests for self-selected groups. Team-based learning encourages learning and development of transferable skills. While it may be simpler to design and assess individual assignments, students learn valuable transferable skills in communication, navigating logistic challenges, and group dynamics that will serve them well in the authentic workplace.

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Evidence of the innovation

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