A Team Exercise for an Online Course: Challenges and Lessons Learned

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Abstract. A team exercise was designed for teaching innovation for an online course. The exercise does not require a high level of technology. It can be used at undergraduate and postgraduate levels, for both online and on-campus learning environments, and for a small class as well as a large class (>250 students). In the exercise, online external students will be divided into police and prisoner groups whereby they are required to use different resources (i.e. cars, buses, taxis, trains and helicopters) for catching the prisoners or for escaping from the police on a virtual map. The online capacity of the exercise allows students from domestic and international, metropolitan and regional areas to engage and interact and thus learn from each other. The team exercise helped to create an innovative online learning environment that was active, cooperative and engaging to enhance the quality of student experiences. This was evidenced by the students’ behavioral, emotional and cognitive engagement in the course. The exercise is particularly useful for teaching innovation and teamwork (as well as for strategic management courses) as students will learn critical skills such as knowledge creation, team learning, people management, resource and time management, interpersonal and negotiation skills, and strategic planning. A reflective report is then used as an assessment with the objective of helping students to learn from their practical experience from the online team exercise. The exercise and report help all students to make connections between what they have been taught in theory and what they need to practice, and thereby students will be able to apply knowledge and skills to demonstrate autonomy, well-developed judgement and responsibility particularly in contexts that require self-directed work and learning.

Introduction to the Specific Objectives of the Teaching Initiative

A team exercise was developed as an online innovative and highly interactive team exercise for an undergraduate course related to innovation and entrepreneurship but it could also be used for teaching postgraduate courses such as strategic management. The specific objectives of this new teaching initiative were to assist students to learn critical entrepreneurship skills such as knowledge sharing/creation, team learning, people and resource management, time management, interpersonal and negotiation skills, and strategic planning. In the exercise, online external students will be divided into police and prisoner groups whereby they are required to use different resources (i.e. cars, buses, taxis, trains and helicopters) for catching the prisoners or for escaping from the police on a virtual map. The online capacity of the exercise allows students from domestic and international, metropolitan and regional areas to engage and interact and thus learn from each other. The team exercise helped to create an innovative online learning environment that was active, cooperative and engaging to enhance the quality of student experiences. A self-reflective report was used to help students to realize what they were lack of and what they could do to acquire the skills to become entrepreneurs.

Within the required time limit the police force’s objective in the exercise was to catch the prisoners and the prisoners’ objective was to escape without being caught. The exercise would last for three weeks (10 rounds). In each round students would need to negotiate with their own group members in order to make decisions on where they would be travelling to and what resources (types
of transportation) they would be using for travelling. Both police force and prisoner groups would need to plan every move strategically in order to gain strategic advantage and achieve their objectives in the online team exercise.

Through the exercise students learned critical knowledge sharing and acquisition for strategic decisions [1]; effective communication to gain and sustain support for novel entrepreneurship [2]; pursue opportunity beyond the resources that were available [3, 4]; learning to lead [5], entrepreneurial team learning [6]; time management and strategic planning [7]. Also, through knowledge sharing they would be able to create innovative ideas, approaches and knowledge to achieve their group objectives [8]. For instance, students creatively developed routines and practices to exchange/share/acquire knowledge and resources in order to gain win-win strategic advantage. All these skills would be critical for becoming successful entrepreneurs in the knowledge economy [9].

After the team exercise was finished, each student needed to prepare their own self-reflection report based on the learning experience they had individually in the online team exercise. Both the online team exercise (formative assessment) and the self-reflection report (summative assessment) formed a critical part of learning for students, both theoretical and practical, as students needed to apply their learning of the concepts and theories to the learning experience in the online team exercise and vice versa.

The Infrastructure

The team exercise does not require a high level of technology. However, students are expected to have access to internet and a computer or ipad in order to participate in the online exercise. A simple open-source software named Leaflet, which is a JavaScript library for mobile-friendly interactive maps, was used to create the interactive map. Weighing just about 33 KB of JavaScript, Leaflet has all the mapping features that most developers need. It works efficiently across all major desktop and mobile platforms and can be extended with lots of plugins. It has an easy to use and well-documented Application Programming Interface (or known as Programmers documentation) and a simple, readable source code that most non-IT users can use. In addition, Moodle discussion forums were used for communication.

The online innovative team exercise, along with the interactive map, can be used at undergraduate and postgraduate level courses, for both online and on-campus learning environments, and for a small course as well as a large course (>=250 students). The online capacity of the exercise allows students from domestic and international, metropolitan and regional areas to interact and thus learn from each other. To keep things simple students can communicate to their own group members via a Moodle discussion forum or facebook chat for planning strategies, sharing knowledge and managing resources. Once they have made a decision they can submit it to the Course Examiner via a delegated Moodle discussion forum. After completing the online team exercise, students then prepared their individual self-reflection reports as summative assessment.

The Challenges

Facilitating student learning when no face-to-face contact actually occurs in an online environment can be a challenge [10]. The issues of student engagement for learning would likely be even more challenging in large online courses. The team exercise was developed as an innovative learning strategy to overcome the mentioned issues for over 200 online external mode (distance) students for an online course. However, during the development of the online exercise different challenges were faced. First, very few online exercise was designed and developed for a large online course and this was the first online interactive team exercise being developed for purpose of enhancing student engagement and learning, and improve retention rates. Thus this was a new and innovative teaching initiative for the students involved as well as the course examiner. To ensure everything was done properly, a team consisted of e-learning designers, media services and learning & teaching support
were brought in to assist in the development of the exercise and the interactive map. A lot of considerations were put into how to operationalize the online exercise in enhancing student engagement and learning. For instance, all assessment details (formative and summative) was made available to students two weeks prior to the semester began. This helped students to be aware of and prepare for the online exercise and self-reflection report. The online exercise instructions were made colorful, interesting and easy to read. The exercise was designed to be challenging but fun at the same time. The online exercise was used aiming to engage students early, develop relationships with students such that they feel comfortable to remain in the online course and learn, and ensure student learning was not only theoretical but also practical. All these efforts helped to engage students before and after they commenced their study.

Another challenge that was faced when running the exercise was that some external students might actually enroll late. The online exercise was designed to commence in Week 2 so that student engagement could start early and thus more likely to improve retention rates. However, it is not uncommon for students, especially those from international partners, to enroll late in a course (as they may run a semester at a different time). Sometimes students may not enroll until after Week Two in a semester. The online exercise started in Week Two and ended in Week Four. This could mean that some late enrolled students might miss out the opportunity to fully participate in the online team exercise. To overcome this challenge, all groups (both police and prisoners) were asked to keep notes or minutes of their discussions. This helped the late enrolled students to catch up with what was going on in their group decision making so that they could quickly commence contributing ideas.

Finally, the success of the online exercise relied quite heavily on effective communication between group members and perhaps even between teams. Many of the involved students were in remote areas where internet access was limited. The online exercise was set up to use Moodle discussion forums for communication. The idea was that all communication and decisions could be kept central for checking. While discussion forums were very useful in many ways, some students found it hard to get instant responses and in rural and remote areas the response time could be even longer. To overcome the challenges, students were allowed to use social media such as facebook and whatsapp for discussion. This helped to facilitate more effective communication in group discussion. However, students were reminded that a copy of the discussion must be available to all other students and sent to the Course Examiner as a record.

How the Initiative was Received by the Learners

The majority of the students were very excited with the team exercise after they became aware of it. It was evident that some students started engaging each other via the discussion forum even before the semester commenced. Many students started assigning roles in their groups. Reinhardt and his colleagues reviewed the current literature of the knowledge worker roles across the workforce and suggested that the roles were incredibly diverse[11]. The typology of knowledge worker roles suggested by them were ‘controller, helper, learner, linker, networker, organiser, retriever, sharer, solver, and tracker’ [11]. These roles also clearly appeared in group members in the online exercise. In other words, the exercise helped students to understand knowledge worker roles in entrepreneurial innovation.

All students welcomed the use of the team exercise. They thought the online exercise helped them to apply the concepts and theories in a ‘close to real life’ situation. Student engagement in the exercise was intense. This was evident that many students was willing to go extra miles to meet at late hours and discuss for extra hours for decision making. Through these intensified discussion they learned to appreciate, compromise, negotiate, influence, create ideas, accept others’ ideas and suggestions, initiate changes and take calculated risks. These could be important predictors of
entrepreneurial behaviour. Entrepreneurial behaviour embraces innovation, is motivated to seek changes in the status quo, draws satisfaction from institutional changes[12].

The Learning Outcome

This innovative teaching initiative aimed to enhance student engagement and learning, and improve retention rates. The online exercise and self-reflective report helped to achieve the objectives. Compared to the last offer in 2015, the total number of enrolment for the course increased by over 40%. Students’ viewing of the study forums jumped from around 3000 times in 2015 to more than 30,000 times. Students’ message postings were measured before and after the online exercise. The statistics showed that the total number of messages postings in 2015 was around 1800 and in 2016 the message postings went up to more than 10,000. This did not include discussions in other social media such facebook or whatsapp. The retention rates were not available at the time when this paper was prepared. However, it was believed that the outcome would be positive. Qualitative measures were also used to evaluate the effectiveness of the team exercise.

I'm doing a diploma in business administration. I'm currently not working and focusing on my studies. Can't wait to jump into this task myself! This is my first online group task though, so I'm not really sure how they work, but I'm excited to figure it out… being an external student, have never had to work with anyone else during my studies. However, team work and communication is a skill we all will be needing at some point in our lives so I am also looking forward to not only seeing where my skill set stands, but also developing it.

The self-reflective report as a piece of reflective writing assessment helped students to reflect on their learning journey in the online exercise. Reflective practice and reflective writing have become intrinsic within professional practice education and programmes nationally and internationally [13]. Reflective writing is one established method for teaching students to effectively elicit, interpret, and translate their stories [14]. As an outcome students were able to reflect on their learning experience and how it was linked to the concepts and theories in the course. This also helped students to link the theoretical concepts and practical application together. The concepts or theories that the students could reflect on using their learning experience from the online exercise may include: knowledge sharing; knowledge creation; tacit knowledge vs explicit knowledge; knowledge worker roles, intellectual capital and its components; resource-based view and knowledge-based view.

Plans to Further Develop the Initiative

Plans are already in place to upgrade the team exercise in the near future. This includes adding a mobile version of the online exercise. The desktop and mobile versions will be identical but the mobile version allows students to have more flexibility and mobility. With this mobile version, on-campus students will be able to participate in the exercise in the classroom like the external students or may even be able to interact with the external students instantly. The mobile version of the team exercise opens up a lot of opportunities for students from different modes to learn simultaneously. The new version of the exercise will be embedded into Moodle allowing easier access. A ‘whatsapp’ style of communication will be incorporate in the mobile for easier communication. This allows students to communicate instantly no matter where they are. Other features including online help; chat history; resource indicators; and reports will be added in the new version. These allow a more user-friendly interface for easier access for students. Short videos featuring animated cartoon characters explaining the background stories and key ideas will be added into the new version of the team exercise to make the exercise more interesting, interactive and fun.
Despite of all these changes, the online exercise remains using a relatively low level of technological requirement. The new version provides more flexibility and mobility; and will be particularly useful for students who are always on the run or travelling.

In short, the team exercise was an innovative and highly interactive online teaching initiative for teaching innovation and entrepreneurship. It helped them to engage with other students as well as the Course Examiner. It allowed them to apply the concepts and theories they learned in the course into real practice. The online exercise will be upgraded with more features and capacity. This allows more opportunity of their exercise to be explored.

References


