Making the Most of Simulations in IB Teaching

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Abstract

Online simulations are becoming increasingly common in undergraduate IB teaching and learning. While simulations offer a variety of advantages for learning, they also pose challenges to faculty seeking to maximize their benefits. This presentation will be practical and interactive, aimed at sharing best practices in the use of simulations in IB teaching. The author/presenter's experience is based on using a simulation (Global Challenge) in a capstone course, and several years of quantitative and qualitative data gathered in a joint project with faculty from the US and Australia. The discussion will elicit comments and ideas from the audience from a range of different contexts and courses.

Key words: undergraduate IB education; experiential learning; business simulations; tolerance for ambiguity; assessment; critical thinking.

Introduction

Games and simulations have become widely integrated into teaching and learning (see Vlachopoulos and Makri 2017). Computer-based business simulations can encourage students to integrate diverse domains of business knowledge into managerial decision-making. The use of a well-structured business simulation can provide exactly the kind of immersive environment needed to provide undergraduate students with a taste of "real world" pressures and context-driven decision-making that may eventually be their daily reality. For example, the US-based simulation platform Capsim announced in November 2018 that 80% of the 50 US colleges listed in Money magazine's article on "Best Colleges for Business Majors" used Capsim's simulation-based learning tools (Gomez 2018). Given the potential benefits, how can instructors make the most of such simulations in their teaching?

The Aalto Mikkeli Capstone

This discussion is based on five years of experience using an IB strategy simulation (or game, used interchangeably here) in an undergraduate capstone course: Cesim's Global Challenge. The course is a requirement for second-year students in the Bachelor's Program in International Business at the Aalto University School of Business, Mikkeli Campus. The program was founded in 1989 as a unique model of the European three-year Bachelor's degree, structured around three-week intensive courses offered year-round in English and taught almost exclusively by visiting faculty from around the world. Degree students complete courses one at a time during two intensive years and then spend a half year at one of the program's 50 exchange partners around the world.

The Program campus is in the center of the small city of Mikkeli, located about three hours northeast from Helsinki, and hosts around 250 students, about one third of whom are foreign degree students and one fourth are exchange students. The program, known for its innovative teaching methods, introduced the capstone course in 2015. The Association to Advance Colleges and Schools of Business (AACSB) has promoted capstone courses as a way to encourage integrative learning and "real world" skill development and the Mikkeli program joined that trend.

The Mikkeli capstone is run once a year and approximately 80-85 students are enrolled. The course calls for approximately 16-18 teams of 4-5 students to act as managers of companies producing and marketing either mobile phones, tablets or cars (depending on the case chosen). The teams are divided into two or three markets ("universes") and are asked to adopt a strategy and make decisions consistent with that strategy in operations, finance, marketing, etc. In other words, they need to decide what to produce, where to produce it, how to finance production schedules and which market segment to target. The game usually lasts 7-9 rounds ("years"). At the end of the course, teams present their achievements and prospects for future success to the instructors and class ("board/shareholders").

The instructors (usually 2-3 from different fields) have lectured on strategy, critical thinking, finance and teamwork. They aim to review previous learning in the program and to some extent introduce new content highlighted in the game (eg, promotion, transfer pricing, etc.). The simulation results usually comprise 20% of the final grade, a team-based report and an individual reflection report account for 40%, individual pre-course tasks earn 15% and team-based strategy and finance reports make up the remainder. Capstone courses are usually designed to integrate previous learning towards the end of a degree program, and this capstone is the final three-week course for many students in Mikkeli before they leave for their required study abroad.

Cesim's online strategy simulation Global Challenge (Cesim 2018) was chosen as the simulation for this course. Cesim is located in Helsinki and offers simulations targeting a range of audiences, from undergraduate students to executive MBAs. More than 500,000 people from various cultures and backgrounds around the world have used Cesim Business Simulation Games (Cesim 2018). The simulation was chosen for its suitability to international business students; and the fact that the company is located in Helsinki meant ready access to essential consultation services, as the course was developed. Cesim's CEO, Veijo Kyösti, provides a personal orientation to the simulation at the start of each new capstone course.

Discussion topics

The discussion at EIBA 2019 will focus on the aspects of using a simulation.

1. **Integrative learning**

Preparing students to use a simulation involves several elements. First, the goal of integrating knowledge in decision-making processes should be clear to the students. Second, a simulation cannot integrate knowledge from all fields equally, so managing student expectations about what a simulation can and cannot do should be made explicit and dealt with in a transparent way. For example, students may complain that a simulation is too finance-oriented, and doesn't deal enough with marketing; but they may be overlooking the marketing dimensions of the game.

In addition, we have considered how much new versus old material to cover. Ideally, a capstone course should be highly integrative, introducing little to no new material. Using a simulation, however, calls for a more flexible approach – and we have learned that although students have studied some topics previously, it seems "new" to them in this context.

2. **Dealing with ambiguity**

A key take-away from many business simulations is dealing with uncertainty and ambiguity, eg making decisions with limited information. Pre- and post-testing can sometimes be helpful in raising issues such as tolerance for ambiguity (cf Budner 1962 and subsequent studies), although our experience in using such tests in a short-term course were mixed. Some of our students reported having a higher tolerance for ambiguity in their private lives compared to their studies, reminding faculty that these patterns can vary within individuals. Others reported that trying to anticipate the moves of their competitors was one of the most useful things learned in the simulation, which they will carry over to working life. In this sense, simulations can clearly offer stronger links to the "real world" compared to more traditional teaching methods.

3. **Critical thinking**

Simulations highlight very well the need for critical thinking in business decision-making. Overall, students are encouraged to keep a "growth mindset" when encountering areas of the simulation with which they may struggle, eg capital structure. In addition, they are challenged to avoid "biased jumping", ie making decisions without thoroughly exploring alternative solutions to a problem. We have had positive experiences with devoting class time to cognitive biases, and limited success administering a test of biases to see their effect on team decisions. We have also noted healthy skepticism among students. For example, a lively debate ensued one year when students in a high-performing team questioned whether their success in the game was due to effective decision-making, which in principle demonstrates an understanding of outcome bias. However, they were so keen to avoid imputing causality that they discounted the possibility that good decision-making did in fact lead to good results.

4. **Team formation**

In five years of using a simulation, we have tried a variety of methods, such as:

- teams formed by faculty, leaders chosen by team;
- leaders apply to faculty, and once chosen, they form teams; and
- teams form on their own, select leaders and then report the process to faculty.

We have noted that running a simulation in teams likely opens up more opportunities for learning compared to competition among individuals. However, we have found that reflection on teamwork in the simulation was more important than the method of forming the teams. One aspect of teamwork students have asked us to reconsider: whether or not to have "specialists", eg in finance, identified in each team.

5. **Assessment**

Various types of assessments can be used in a course based on a simulation. The obvious starting point is performance in the simulation – are the points assigned taken straight from the simulation itself, or are other criteria applied? What is the impact of peer evaluation of individual contributions to the team? How much new knowledge and skills should students be expected to acquire, if the goal is in fact integrative

learning? How can reflection tasks be structured in a way that students dig deeper to question their own learning? Three examples are worth highlighting here.

First, some students claimed at the start of the capstone course that they know all there is to know about teamwork, because they have done so much of it in their studies thus far. But by the end of the capstone, many students explained that they learned new things about teamwork, since they needed to make decisions together every day rather than dividing up the work and then piecing it together. This realization emerged partly through the reflection work the students completed during the course.

But how should the reflection task be organized? In the most recent iteration of the capstone course, we asked students to set their own learning goals for the course, and then reflect on the extent to which they achieved those goals, and why or why not, at the end. This has worked well, partly because it seemed to prompt students to focus more concretely on their own learning instead of being tempted to tell the instructor what he/she wanted to hear.

Second, the simulation can serve as the basis for additional challenges. We developed an M&A task that requires students to valuate their company and structure a deal with another company assigned to them by one of the instructors. This took the experience of the simulation a step further, and is a good example of how a simulation or business game can be complemented with related assessments.

These broad thematic areas will provide a structure around which to engage EIBA participants in a conversation about the opportunities simulations can provide for teaching and learning international business.

References

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