Qualitative Research Proposal:

Faculty Impact on Business Simulations

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Chapter 1

Introduction

Business simulation has become an important part of business education at both the undergraduate and graduate level. Universities use the simulations to measure students' mastery of the curriculum, and to benchmark themselves against other schools worldwide. The data generated by business simulations is also useful as assurance of learning for accreditation purposes (Wolfe, 2016).

This case study involves studying one section of a course taught by an instructor at an urban, public university, who consistently fields teams which score in the 98th percentile of Balanced Scorecard scores on their business simulation. The instructor's course section will be observed throughout the semester, the instructor will be interviewed, and focus groups of students in the section will be formed.

This study is important because it will lead to an understanding of best practices in administering and debriefing a business simulation. This information will be used to create a professional development offering for the other instructors who administer the simulation in their own courses.

Statement of the Problem

There are many simulation products on the market, and they are all designed to allow students to run them independently once the instructor sets the parameters for the simulation. However, this does not imply that there is no need for a facilitator. In fact, multiple authors have noted that the debrief in a simulation training may be the most important part of the experience. It is only in the debrief that students can examine what happened in the simulation and why, and

to deal with the various emotions that playing an intense, immersive game can bring about (Crookall, 2015; Paige, Arora, Fernandez and Seymour, 2015).

Many instructors who are assigned to administer business simulations are not digital natives, and do not have the confidence needed to effectively facilitate this technology. One solution is to provide professional development training to instructors to support them in administering the simulation, and in debriefing the results of the rounds. In order to develop this training, it is necessary to determine what makes some instructors more successful than others when administering these simulations. Once that data has been collected and analyzed, topics for further study will be identified, and the professional development offering can be prepared.

Purpose

The purpose of this study is to explore the impact of the instructor in administering a multi-week business simulation experience. The theory developed in this exploratory case study will be tested in a larger study at a later date. Ultimately, the goal is to develop best practices for new instructors, and a video training module or professional development program. The audience for this research is the faculty of the School of Business of the target university.

Research Questions

This study will focus on three major questions:

1. How do the instructor's techniques and policies for administering the simulation influence the performance of students in the simulation?
2. How does the debrief conducted by the instructor impact students' understanding the simulation scenario?
3. How do students characterize the support they receive from the instructor?

Limitation

A potential limitation of this study is that there is no guarantee that the course section selected will experience the same high level of performance as the teams in the previous semesters courses delivered.

This case study will also be limited by its interpretive nature, and its dependence on the researcher to find meaning in the data (O'Keefe, 2012).

Delimitation

This case study will be limited to one section of a Principles of Management course at one urban, public university using a purposeful sampling technique (Creswell, 2014). The section was chosen because the instructor has consistently had at least one team score in the 98th percentile in the world for this simulation.

Assumptions

The study assumes that each section of the course enrolls students who have a similar level of aptitude, motivation and experience in the aggregate, that is, that the higher performing or more experienced students at the university do not purposefully select this instructor's course section. This assumption is made because students come to the Principles of Management course at the same level of their undergraduate programs, as it is an early foundation course.

Although the instructor in question has experienced three consecutive semesters with teams scoring in the 98th percentile worldwide or higher, there is no guarantee that the section selected for this study will experience similar results.

Chapter 2

Introduction

This exploratory case study will examine the impact of the faculty member in undergraduate business simulations. It will be a single-case study, focusing on one instructor at an urban, public university, who consistently has at least one team in the 98th percentile or higher, as measured by the simulation's balanced scorecard. This instructor has maintained this record for three years. Although there are generally 14 sections of courses using simulation at any time, no other instructor at the university has a similar record. The instructor has shared her process with the rest of the faculty at a workshop, but there was no significant difference from other instructors' processes. The study is designed to discover what this instructor does that elevates student performance. It will include observations, instructor interviews, and student focus groups as data. The triangulation of data sources will add to the validity of the study.

There have been multiple studies of student attitudes, motivation and perceptions as they relate to business simulations. However, there were few articles in the literature focusing on the instructor point of view. Most of the literature was focused on narrative accounts of professional development, across several disciplines. The importance of the facilitator in delivering business simulations was evident throughout.

Review of Relevant Studies and Theory

Simulation is a form of experiential learning, which was proposed as a theory by Kolb (Kolb & Kolb, 2005). Experiential learning theory was based on the work of several prominent theorists, including Lewin, Dewey, Piaget and Freire. The theory views learning as a process. It is a result of combining new experiences with existing concepts, and modifying concepts based

on new experiences. This constructivist theory is in direct opposition to the traditional, instructor led, model of learning (Kolb & Kolb, 2005).

Simulation is a technique often used in business courses. Accredited business schools are required to assess the effectiveness of their curriculum and often choose simulation programs to provide this assessment. The most prestigious accreditation organization, The Association to Advance Collegiate Schools of Business (AACSB), suggests that its member universities use business gaming to assess their program and benchmark their offering against other universities (Wolfe, 2016).

A business simulation places the student in the position of an executive in a large corporation, charged with the responsibility to make the decisions necessary to develop new products, market them effectively, produce products while controlling costs, and maintain effective financing of the activity of the business (Capsim, 2017a). Teams of students or individual students compete against others in their own class, and against computer generated companies. The teams are scored on a Balanced Scorecard, which evaluates their performance with respect to "customer, internal business, innovation & learning, and financial" measures (Capsim, 2017b). The concept of the Balanced Scorecard was developed by Robert Kaplan and David Norton to provide a picture of a company's performance, both current and future. This focus on the present and future ties performance into the strategy of the business (Kaplan & Norton, 1996). Teams participating in business simulations are also benchmarked against all other teams playing at the same time worldwide based on the Balanced Scorecard. The top ten percent of teams worldwide are published daily on the simulation website. Teams check this website after every round to see if they are in the top ten.

Tanner, Stewart, Totaro and Hargrave (2012) studied the reaction of faculty to simulation, in contrast to more traditional techniques such as case studies, service learning, in-class discussion and research papers. They found that faculty generally felt that simulation was an effective tool, but not necessarily more effective than the other techniques.

Cadotte (2016) notes that the goal of simulation activities is to provide a transformational experience to students that will allow them to integrate the concepts they have learned in class into their own lives. Another goal is to increase the skill-level of students to help them succeed in their job after graduation, as opposed to attaining abstract knowledge. A third goal is to ensure that the simulation is easy to play and easy to teach. He states that faculty are sometimes hesitant to adopt simulation into their own courses because they fear it is a lot of work. He also noted that faculty are worried that they will look bad to their students if they can't answer every question (Cadotte, 2016).

Simulation-based training relies on an effective debrief after the simulation to assist students in processing their experience and reflecting on it. Paige, Arora, Fernandez and Seymour (2015) note that the effectiveness of the debrief is dependent on the skill of the facilitator. They studied surgical simulation training, and found that the video tutorial for facilitators was not adequate to develop debriefing skills. The medical school faculty developed an in-person workshop that focused on the debrief. This two-day workshop included classroom sessions as well as an actual simulation with volunteer participants. The facilitator trainees had the opportunity to develop their debriefing skills and receive valuable feedback. After the training, A survey after the experience showed significant improvement in the facilitators' self-efficacy (Paige et al., 2015)

Crookall (2015) states that debriefing and engagement are closely related. Participation in a simulation can be stressful and can bring out many emotions in participants. If there is not an opportunity to process these emotions during a debrief, they could have a negative impact on memory and learning. It is quite possible for a student to reach the game's objectives, but not learn the concepts that were meant to be taught, because the learning is blocked by negative emotions. If the debrief is not effective, the participants may learn less and be less satisfied with the experience (Crookall, 2015).

As students expect more technology in their courses, it becomes important to assist faculty with understanding and effectively using this technology. This matter becomes complicated, because many faculty members are not digital natives, and lack comfort with technology in general. These faculty members need extra support to make the transition into teaching with modern technology such as simulation (Alstete & Beutell, 2016).

Tao, Cheng and Sun (2012) studied the perceptions of students and faculty with respect to business simulation games. They found that in many cases, faculty refused to use simulation in their classes, or discontinued use after trying simulation. Their research suggested that teachers need more support to fully embrace simulation as a teaching method.

Kinnear, Smith, Akram, Wilson and Simpson (2015) also studied the need for skilled faculty members to lead effective simulations. They proposed a method where experienced facilitators of the simulation games work together to develop support courses to assist faculty in developing these skills. They also note that there is a significant cost to implementing such an in-service training effort. Silva, Correia and Pardo-Ballester (2010) took a different approach to helping teachers achieve success with new technologies, developing a formal mentorship

program. By actively participating in the target technology themselves, as well as meeting regularly with their mentor, the mentees advanced in confidence and technical skill.

Cadotte and MacGuire (2013) examined another university's approach to business simulation, using paid, specially trained Business Coaches assigned to teams. The coaches are doctoral students and community members, and they are extensively trained for this role. The trainee coaches play the entire simulation in teams, as if they are students, and then again as individuals. They are also assigned to an experienced mentor coach to support them once they are in the field. In the classroom, the coaches take on the role of the Chief Executive Officer of the company, and teams report out to them weekly. The CEO challenges and encourages the team members, sometimes taking the role of devil's advocate. The briefings are graded by the Business Coach using a rubric. Students reacted positively to the Business Coach role, noting that the coaches gave them tips to help them resolve their own issues within the simulation (Cadotte & MacGuire, 2013).

Summary

Although there are few studies of faculty aspects of business simulation, the literature for business and other disciplines demonstrates the importance of the facilitator in administering simulations. Facilitators are needed to introduce the simulation, debrief the results after each round, and generally support students. Faculty need support to become effective facilitators of simulations, and to help their students reap the maximum benefits of the simulation experience.

Chapter 3

Introduction

There is little literature focused on the impact of instructor activity on student performance on business simulations. The literature review for this study focused on the role of

the faculty member during the debrief and the creation of professional development opportunities for faculty and coaches involved in business simulation. This gap in the literature represents an opportunity for future study of this important topic.

The study of faculty impacts on business simulations is important, because the instructor plays a pivotal role in introducing, debriefing and supporting students during a business simulation. This exploratory case study will focus on one extreme case: a single instructor at an urban public university. This instructor has had extraordinary results with at least one team in each of her course sections scoring in at least the 98th percentile in the business simulation for the past three years. The purpose of the study is to identify the instructor's techniques for introducing the simulation, debriefing the simulation results weekly, and supporting students throughout the simulation experience. This chapter will explain the choice of study type, the parameters of this study, and the procedures for collecting data.

Research Design

A case study approach was chosen for this study, because the phenomenon being studied is contemporary, and can be observed in its natural context (Yin, 2002). It is also difficult to distinguish between the phenomenon, in this case, the high level of performance of some teams in the instructor's courses, and the context, which is the course itself. The study is a single-case study, characterized by an abundance of variables and multiple sources of data leading to triangulation of data. Yin (2002) notes that case studies benefit from prior theoretical propositions, but the literature does not include significant research in this area to assist in the formation of such propositions.

This study will focus on three major questions:

1. How do the instructor's techniques and policies for administering the simulation influence the performance of students in the simulation?
2. How does the debrief conducted by the instructor impact students' understanding the simulation scenario?
3. How do students characterize the support they receive from the instructor?

To enhance the validity of the study, data will be collecting using triangulation of sources, including observations, interviews and focus groups. The draft report will be member checked by the instructor of the course to increase credibility (Creswell, 2014),

Population and Sample

A purposeful sampling method was chosen for this study, to understand the impact of the faculty member's teaching techniques on student performance and experience in a business simulation. The case was selected as an extreme case, demonstrating an unusual level of success on the weekly balanced scorecard evaluation of the simulation (Creswell, 2014). The course section selected for the study was chosen because it is taught by an instructor who over the last three semesters consistently has at least one team in the 98th percentile or higher on the worldwide ranking of the business simulation results. In comparison, there are 13 other sections of courses using the business simulation, and no other professor has experienced similar consistent results.

The instructor for this course has used the business simulation in her courses for three years. She has over five years of experience teaching management courses at two colleges in New Jersey.

The students in the selected section are primarily first year undergraduate students, although some students do not take Principles of Management until their second year. The course is a prerequisite for all other management courses, as well as some business courses in other disciplines. Most of the students are 18 to 20 years old, and live in the local Hudson county area. This area is economically challenged and the population is diverse (New Jersey City University, 2016).

The enrollment for this course is typically 25 students. Data is expected to be collected from all members of the class. All data will be collected on-site at the urban, public university.

Researcher's Position

The researcher teaches a course at the same university which utilizes a similar business simulation, therefore may bring personal experiences to the study. Care will be taken to remain objective in reporting and interpreting the data collected during the study. The researcher has no prior interaction with the student participants in the study, and is acquainted with the instructor of the course in the study.

Procedures

To complete this study, the following procedures will be used:

- The proposal for the study will be submitted to the Institutional Review Board for approval
- Permission to conduct the study will be sought from the Dean of the School of Business, the Chair of the Management Department, and the instructor of the selected course section.

- Observations will be scheduled with the instructor six times during the semester. Week numbers denote the simulation timeline. See Appendix A for a preliminary checklist for the Week 0 observation.
    - Week 0 – to observe the introduction of the simulation to the class
    - Week 2 – to observe a standard debrief session early in the simulation
    - Week 4 – to observe the beginning of the competition rounds
    - Week 6 – to observe a standard debrief at the midpoint of the simulation
    - Week 9 – to observe a standard debrief near the end of the simulation
    - Week 11 – to observe student presentations of simulation results including reflections on the experience

.

- Instructor interviews will be conducted at the beginning of the simulation, and again toward the end of the simulation. See Appendix B for preliminary interview questions.
- Focus group interviews will be held with each team toward the end of the simulation experience. See Appendix C for preliminary interview questions.
- Analyze and code the data collected to discover trends and formulate a theory
- Produce a draft report of the results of the case study
- Share the draft report with the course instructor for member checking of data
- Produce a final report of the results of the case study
- Share the completed report with the Dean, Department Chair and instructor.

Data collected will be organized into folders, with electronic backup files created. At the end of the fifth year after the publication of the results, the original data will be destroyed by secure methods.

Conclusion

The completion of this study will lead to insights into effective techniques for facilitating business simulations. The themes that emerge will result in opportunities for further study. As a product of this research, best practices will be identified, and a professional development session will be designed.

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Appendix A

Observation Checklist for Week 0

- ☐ Arrive at classroom at least 5 minutes before class
- ☐ Sit in back of classroom so there is less disruption
- ☐ Capture main themes of instructor's explanation of simulation
- ☐ Record student reactions
- ☐ Are students engaged?
- ☐ Are students understanding the instructions?
- ☐ Does the instructor use any video or instructional aids?
- ☐ Does the instructor distribute/review the Team Member Guide?
- ☐ Record reflective notes on observation
- ☐ Thank the participants at the end of class

After review of notes from Week 0 observation, a new checklist will be created for Week 2

Appendix B

Sample Questions for Instructor Interview for Week 0

- What is your general impression of how the orientation went?
- What went right in your presentation?
- Did you get the impression that the students understood you?
- What surprised you about the orientation?
- Did you have any concerns about the presentation?
- Did you learn anything that you will incorporate into your next orientation?

Based on upcoming observations, additional interview questions will be prepared for Week 6 interview.

Appendix C

Preliminary questions for Focus Groups, Week 3

- What is your general reaction to the simulation experience?
- How would you describe your instructor's role in the simulation?
- Do you feel the instructor is supportive of you in the simulation?
- Would you change anything about how your instructor handles the simulation?
- Do you have any other comments you would like to make about the simulation?

Thank you for your assistance!!