

Innovation²: Innovative Course on Innovation Takes On the Lebanese Revolution

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Abstract

The purpose of this paper is to showcase the unique learning outcomes derived from an innovative course facing disruption from unforeseen political events. In spite of the tense events on the streets surrounding the university during the Lebanese revolution, which erupted in the middle of the semester, we were able not only to implement pre-planned innovative teaching methods to challenge student thinking and traditional higher education practices, but also leveraged the revolution context to introduce new topics and approaches to course delivery in the face of road closures and risks to students' wellbeing. Strategic innovation management topics were complemented by the real time innovative strategies to continue education developed jointly by the course instructor and the students, resulting in an Innovation2 effect. Ultimately, the course learning outcomes were reinforced and broadened by embracing the continued uncertainty and relating to the ongoing situation day by day. As Lebanon and AUB enter its second semester of the political revolution, this paper aims to share lessons learned from both, the initial course innovative design, and its delivery in the crisis circumstances of the revolution in order to help faculty dealing with unstable educational context in Lebanon, Middle East and other challenging regions.

Keywords: *Innovation, Revolution, Adaptation, Interactive Learning, Flipped classroom.*

1. Introduction

Innovation management is a popular topic in the business curricula since it is widely regarded as a critical source of competitive advantage in an increasingly changing environment (Dess and Picken, 2000; Tushman and O'Reilly, 1996). Such a course is also an opportunity for instructors to do what they preach and introduce innovative methods of instruction. This time in Lebanon, the circumstances took the challenge to an all new level when the instructor and the students found themselves in the midst of a national uprising half-way through the semester. This paper recounts the story of an undergraduate class at the American University of Beirut (AUB) that stood up to the challenge and completed the innovation management course through creativity, teamwork and innovation. We called this situation **Innovation²** to highlight the conditions when the class has to innovate not only as a part of pre-planned innovative teaching methods (explained in section 4), but also in response to new circumstances of an ongoing revolution (explained in section 5).

Innovation is defined as production or adoption, of a value-added novelty in economic and social spheres; it is both a process and an outcome (European Commission, 1995), whereas revolution is a fundamental and relatively sudden change in political power and political organization which occurs when the population revolts against the government, typically due to perceived oppression or political incompetence (Bullock & Trombley, 1999). Both concepts are similar in their aim of a systemic change. While we can easily compare radical innovation and revolution, even an incremental change can be considered a small revolution.

Strategic Management of Innovation course (SMI) is a unique case study that yields interesting conclusions to the academic world. By combining a course centered around educating future professionals about innovation with the revolutionary environment, students linked both concepts together in a way that reinforced their civic and academic development.

2. Background

Lebanon is a small country nestled on the Mediterranean Sea, that has been wrought with instability and political/religious tensions ever since its inception in 1920. Home to a vast array of ethnic groups and religious sects, the country has always been rocked by conflict, with the most destructive being the Civil War (1975-1990), which ended with the Taef Accord (1989) dividing the governmental positions between the different warring sects: the President role has to always be allocated to a Maronite Christian, the Speaker of Parliament must be a Shia Muslim, and the Prime Minister position is reserved for a Sunni Muslim. This set up has effectively an end to the separation of religion and the state, since political

parties are directly affiliated with specific religious sects and foreign allegiances (CIA, 2017). These political parties went on to mismanage the country for the next three decades.

In October 2019, a popular movement uniting many Lebanese under a united national identity, not separated by sects exploded into protests across the entire country, forcing the government to resign and plunging the country into a downwards spiral. The ongoing economic crisis, which was one of the many reasons that pushed protesters to the streets (alongside rampant corruption and governmental mismanagement) grew only worse as the buying power of the local currency fell drastically, resulting in the Lebanese banks starting to limit withdrawals causing a sharp drop in liquidity. Even after a new government was appointed in January 2020, the protests keep going on. Peaceful demonstrations continue experiencing violent police brutality, and the country's future situation remains uncertain. This situation disrupted not only daily lives of the citizens, but also interfered in the academic life as many students and faculty members participated and even spearheaded the revolution.

3. Impact on Various Academic Stakeholders

The higher academic scene of Lebanon is comprised of many private universities as well as the public Lebanese University. Those institutions were severely affected by the revolution. Founded in 1866, AUB is the oldest and the most prestigious academic institution in the country, which *de facto* became the center of action. The university had many challenges, including the safety of its students and faculty dodging roadblocks trying to attend classes. AUB administration had to balance between enforcing academic requirements and allowing students exercise their civil rights. Yet, the semester had to be completed by Christmas with all required learning objectives met. In addition to the revolutionary issue, there was a bigger problem of a sharp devaluation of the local currency which caused further unrest as the students had to pay their tuition fees in an increasingly more expensive US Dollar (USD).

AUB faculty had their fair share of challenges during the revolution. As the local currency crashed, and the academic semester was in peril, the professors had to find creative and innovative ways to keep coursework and instruction going, even when all the classes were being cancelled "until further notice." Many foreign faculty chose to leave the country, which caused a lot of problems and uncertainty, especially for the students taking their classes.

Students represented the group which was most negatively affected by these events. Since many of them were politically active, they were on the frontline during the entire ordeal and had to juggle coursework, attending classes, and protesting for their rights and their dream to live in a country in which they will be able to find work and satisfy their most basic

needs. Moreover, already high tuition fees were starting to become an unbearable burden to the students due to the local currency devaluation. These realities draw contrasts and parallels to the Palestinian and South African struggles. In the Palestinian context, education became an important coping strategy to deal with the instability in society (Alzaroo, & Hunt, 2003). While the South African context, highlighted how high tuition fees can create a crisis outright resulting in attempts to innovate on the university education model by introducing distance learning (Wet, 2016). All of these factors made the students realize that they had an immense stake in the outcome of this revolution, and that they had to improvise and innovate in how they approached the continuation of their academic pursuits, as will be discussed further down below.

4. Strategic Management of Innovation (SMI) Course at AUB

SMI is an undergraduate business elective course that was offered for the first time last semester. Developed by one of the authors based on their research and previous teaching experience, the course had an experimental design, which already included innovative instructional methods as it will be explained later in this section.

There are several instruction methods that provide students with an improved learning experience mentioned in the literature, such as flipped classroom (Walvoord & Anderson, 1998), inverted classroom (Lage, Platt, & Treglia, 2000), peer instruction (Mazur, 2009), and the case method (Apaydin, 2008). All these methods have interactivity in their core, which leads to an integrated learning (Inkpen & Crossan, 1995). SMI incorporated interactivity from the start, and leveraged it during the crisis, building on several complementary methods.

4.1. Student-Centered Classroom Emphasizing Self-Actualization

SMI was designed based on the 3A approach (Awareness→Analysis→Action) (Apaydin, 2014), which makes students aware how they will be taught and why, including theoretical explanations of how humans learn. Pintrich (2002) stresses that students must know about learning strategies, not just practice them, in order to retain those skills. As a result, students not only become aware of the stages of the learning process, but they also become motivated to achieve the top level not only in Bloom's (1956) taxonomy but also in Maslow's (1987) hierarchy, which is self-actualization (Apaydin & Hossary, 2017).

4.2. A Focus on Self Reflexivity and Collaborative Iteration to Reinforce Concepts

Too often traditional education falls victim to the “pipeline business” of creating student “thinking silos” whereby they produce and submit work while isolated from their peers. SMI class introduced a collaborative exercise, “Mind-Mapping” innovation, which synthesized all the required material in one visual. What started as a simple illustration

connecting ideas in a linear fashion quickly saw the congregation of multiple ideas and linkages. Fig. 1 visually showcases the effects of repeated classroom discussion to reinforce concepts. Not only was the first draft missing crucial information while defining innovation, but students were led to believe that this information and definitions were generally isolated. It was after repeated and focused discussions that the students were able to discover that many linkages appear in seemingly unrelated concepts, and that by working together as a team, the explanation of complex concepts can be best explained.

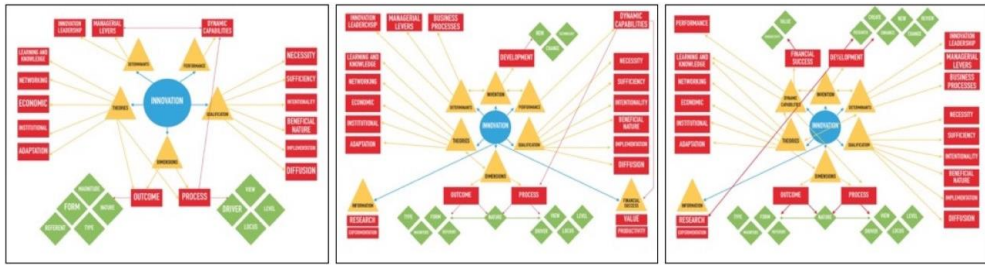


Figure 1. Evolution of Classroom's Mind Map on Innovation

Furthermore, self-reflexivity, an exercise where at the beginning of each class students wrote down everything they remembered from the previous class, was used class to both reinforce concepts and spark discussion. It allowed students to individually recall relevant information, discuss it in pairs, and then finally debate them as a class and depict visually on the board. It operated similarly to how Harvard and Ivey Business Schools present case studies (individual, group, class) to maximize retention and learning (Mauffette-Leenders, Erskine, & Leenders, 2005). This process addresses the problem that students are usually loaded with abstract concepts without understanding the complex relationships between them.

4.3. Diverse Course Content Delivered Through Immersion

Exposing students to global thinking and cross-cultural concepts is an essential part of the academic journey, but coupled with immersion, it can lead to enhanced retention and comprehension. In the Japanese “Design-Thinking” Module, students had to conduct an ethnographic research to identify unspoken needs of their targets, in the midst of an ongoing revolution, and produce actionable recommendations for their target business/location.

We have identified the following issues...

1. Lack of interaction with Museum
2. Difficulty operating audio guide
3. Lack of support for outside visitors
4. Store leaves a lot to be desired
5. Difficult to find the museum – low awareness
6. **Strict guidelines (no taking pictures)**
7. Difficulty during navigation (tight spaces)
8. Accommodation for people with special needs
9. Usage of museum – could be used for alternative events

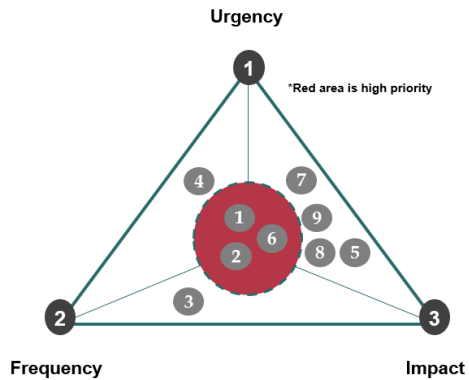


Figure 2. Student Identification of Pain Points

In Fig. 2, students carefully identified pain points faced by the AUB museum after subtly following a group of tourists. The team did not disclose what they were doing to the group in order to not alter the group’s behavior. Following this study, they were able to identify several pain points such as the overall “lack of interaction” and the “difficulty operating the audio guide” and make a recommendation to incorporate Virtual Reality solutions in areas where engagement with the Museum was minimal (Figure 3). Thus, design thinking challenged the existing “customer journey” model and ensured innovative solutions.

Case Study: The National Museum of Finland



The VR headset allows people to feel as if they are stepping inside the painting. Visitors find themselves within the scene and can look around at the Hall of Mirrors from a 3D perspective. They can even speak with the Russian Emperor and other characters depicted in the painting. It is part of an exhibit detailing Finnish life and politics in the 1860s, under the Russian Empire.



Can replace the balcony section and implemented with the Computer Science Society at AUB

Figure 3. Student Recommendation to AUB Museum

4.4. Students Teaching Students

Known as a flipped classroom (Walvoord & Anderson, 1998), the method of student teaching their peers is extremely effective as it increases retention and ownership of the subject (Glasser, 1986). In SMI, student teams competed in creating various interactive

exercises to explain various pillars of the Organizational Innovation (Crossan & Apaydin, 2010) (Fig. 4).

These were the innovative methods already embedded in the course, but then, due to the on-going uprising, additional changes had to be made, bringing it to what we call **Innovation²**.

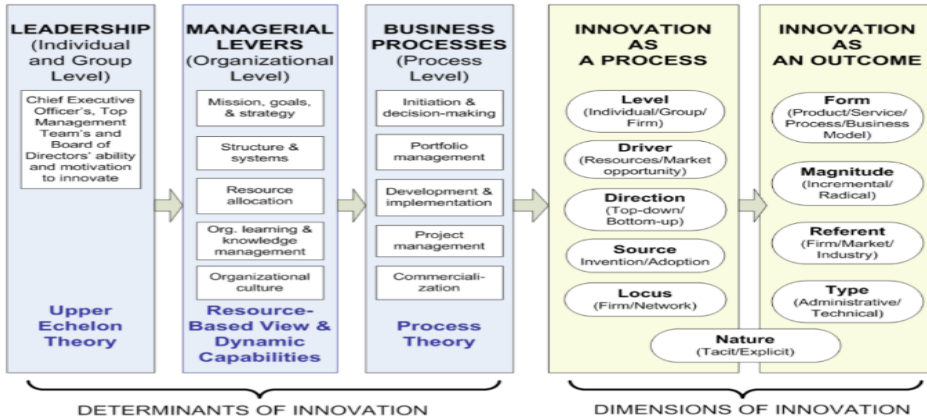


Figure 4. The Innovation Framework

5. Innovative Infusion from the National Revolution

5.1. The Emergence of the Omnichannel Classroom

The most immediate change resulting from the revolution was the lack of classes. For about a month, students were unable to reach university because of road closures and blockades. Even when classes resumed, many students were not able to attend because of their parents' safety concerns. The first change in course delivery occurred when only half of the class attended. When traditional in-class sessions were no longer viable, students proposed utilizing their cell phones to connect remotely (Fig. 5). This became the primary solution to enable all students to participate in the remaining classes, albeit virtually.

5.2. Improvisation Regarding Assignments

Under these extraordinary circumstances, the idea of linking the course and the revolution came about. By comparing the Lebanese and the Bolivian revolutions (depicted in the film *Our Brand is Crisis*), students were challenged to find structural parallels that led to the planned innovation, represented by a revolution. One student concluded: *"the innovation framework is indeed omnipresent in actual real-life events and even in fictional ones. We*

6. Positive Learning Outcomes and Recommendations for Higher Educational Professionals

The lessons learned from this case study illustrate how to maximize learning outcomes and benefits when faced with a disruption as big as a national revolution. Both, content learning goals and skills learning objectives were met. We may add that the students also acquired new skills such as crisis management and communication. By [1] shifting the classroom into a dual-mode offering [2] incorporating alternative assessment procedures and assignments and [3] synthesizing concepts with real-life examples, students have not only been able to absorb information, but more importantly, learn more about drivers of their own revolution.

Higher Education professionals may learn from this case study that what can be perceived as a threat, may turn into an opportunity to improvise and reach **Innovation**² instead of just “Innovation.” To do so, we suggest using the above mentioned 3A Approach (Apaydin et al., 2017): 1) Build *Awareness*: be aware of the current situation etc. gather multiple data points and learn; 2) Conduct *Analysis*: Uncover current drivers of present day situation, tailor conclusions; and 3) Do *Action*: Tailor course content, and start a revolution in the classroom!

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