

# Case Study, Simulation and Management Games: Use, Benefits and Barriers in Undergraduate Business School Program (CEAS-IMSIU)

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## Abstract

This research focused on three main teaching methods: case study, simulation, and management games from both theoretical as well as empirical aspects. It explores the use, the benefits, and the barriers of the mentioned teaching methods related to the main management courses from Faculty Members (FMs) perspectives. The empirical investigation was based on a survey of all business departments' faculty members. This study revealed (1) the predominant use of lecturing despite the respondents' engagement in case study, simulation, and management games. It showed that (2) the frequency use of these teaching supports was particularly related to some courses, not systematically, and depended on the faculty member (rank, experience, place of degree). Finally, (3) the main barriers preventing the FMs from using these teaching methods are associated with resources, more than risk and suitability.

**Keywords:** case study, simulation, management games, use, benefits, and barriers

## 1. Introduction

A trend towards more active, interactive and experiential-based learning seems to be prevailing in the education world, called "learning by doing" (Senge & Fulmer, 1993). A dichotomy in business education, revealed by Lucas and Milford (2009), between two orientations viewed management as a set of courses. The second called 'education about business', focused on teaching and learning strategies and considered management as a practice. This dichotomy brought about complex issues. However, these two approaches are not necessarily contradictory. The current challenges in academic management education are to rethink the business curriculum both from cognitive and utilitarian perspectives. Considering management as a profession rather than an activity, as understanding situations is not enough; a manager, as an employer, needs also to resolve problems, make decisions and think about different issues (Grey, 2004). Indeed, courses in business management often use a variety and combination of learning methods, such as: lectures with discussion, case study, role playing, video games, business or management games, and company-based research projects.

The recourse to several methods in a business program or curriculum invites questions concerning their appropriateness in achieving learning outcomes and whether these methods complement each other in order to acquire the required skills, knowledge and behavior.

According to many studies (Mintzberg, 2004; Pfeffer, 2007; Crainer & Dearlove, 1998), business curriculum needs to be revisited to resolve or reduce the gap of the imbalance between theory and practice in management teaching and to rethink its mission. Several alternatives have appeared such as Gardner's idea (2008): "Five minds for the future" which should be considered and may be followed by Business schools in order to enable young people to deal and cope with the complexity of the business world.

This exploratory research focused on three main teaching methods: case study, simulation, and management games. Based on the above discussion, our research questions can be summarized as follows:

1. What proportion of the Faculty Members (FMs) in business department at (CEAS- IMSIU) are using these business teaching methods?
2. How important and relevant are these teaching methods from the perspective of FMs?

3. How relevant are these teaching supports and methods from the perspective of FMs?
4. What are the barriers preventing the FMs from using these teaching methods?

All these questions focused on the learning and teaching methods and emphasized on pedagogy and a complex skills kit. This study is based on a survey of all business departments' (CEAS-IMSIU) faculty members (female and male) and an exploration of all business courses description. A questionnaire was designed based upon the literature review (Lean *et al.*, 2006; Jennings, 2002).

This paper is structured as follows. First, we present an overview of the different teaching methods: benefits and barriers for business curriculum. Secondly, we treat the case study, simulation and management games relevance degree, appropriateness and practices in business department. The research concludes with a discussion on the implications and limitations of these teaching methods.

## 2. Literature Review

The literature review on the topic of teaching methods in business curriculum allowed us to advance the following findings.

The literature is very abundant. The studies on this topic dated back to the turn of the 20<sup>th</sup> century. The teaching supports topic in business curriculum has had a resurgence of interest in the 1990s and has been treated from the perspective of the curriculums (Jennings, 2002), the institutions (Vaughan, 2007) and the students (Keys and Wolfe, 1990, Tanner *et al.*, 2012).

A survey of the literature review on the most common business school teaching supports, the case study, the simulation and the management games, showed that these teaching devices are not ostensibly new but they have ancient origins. They were used for half of the last century and became more developed in the 1990s (Lane, 1995).

These most cited teaching methods in the literature are not necessarily complementary (Jennings, 2002). They shared some common points: active, interactive, problem-based learning and collaborative (Prince, 2004), self-efficacy (Tompson & Dass, 2000) and double-loop learning (Argyris, 1980). They appeared in different contexts and respectively, case study (1910s: Dooley & Skinner, 1977); simulation (1950s: Prince, 2004) and management games (1950s: Wolfe & Crookall, 1998, Dill, 1961) and have been implemented in different leading Harvard business schools, Virginia, Southern Methodist, Stanford, and Yale.

Since the 1990s these teaching supports as well as the management curriculum faced different critics (Garavan *et al.*, 1999, Grey, 2004, Mintzberg, 2004; Pfeffer, 2007). Based on the new issues (Mahmoud and Frampton, 1975; Kozminski, 2011) related to employment challenge, business school survival and management education reinvention which concerns generic and conceptual issues, pedagogy and program design (Grey, 2004), the business curriculum needs to be revisited. Some authors advanced that "the fundamental problem of the school of business is not whether to emphasize professional education, but how best to adapt its offerings to the changing and challenging needs of business" (Wheelen, 1972). Others focused on companies, public sector, agencies and association needs for business graduates to be employable by the end of their studies, requiring business-related knowledge and skills. (Lucas & Milford, 2009).

These teaching methods are related to some assumptions about the learning process (Burgoyne & Stuart, 1978, Argyris & Schön, 1978, Grey, 2004) and could be viewed from different theoretical perspectives. These are experiential (putting a student in a manager role; lived experience: interpersonal relationships and self-awareness), cognitive (each student could compare and contrast his own cognitive map of a certain issue with another student) and cybernetic (the information transfer process) schools of thought.

These active teaching methods have been pointed out as being more effective and addressing the limitations of traditional teaching (Feinstein, 2001, Ruben, 1999). As mentioned: "*The central belief underlying our use of cases is that you will acquire the analytic and communication skills needed to perform effectively... far more quickly and efficiently through becoming actively involved in well-structured case discussions than you will through more passive methods of learning. Learning by participating in discussions where a large part of the burden is on you to discover the central lessons and insights is far more effective than learning by more traditional academic methods.*" (Argyris, 1980).

However, the teaching methods effectiveness is not intrinsic but linked to several variables such as the content (Bligh, 2000), the curriculum, the faculty member profile (Argyris, 1980), the facilities and the outcome profile (Gardner, 2008, Grey, 2004).

As defended by different authors, researches mentioned that lecture-based teaching is less effective than interactive one (Caldwell, 2007; Knight & Wood, 2005), with lectures being the most disliked form of teaching

encountered by students (Sander *et al.*, 2000). Bligh (2000) contends that lectures are good for knowledge transmission but do not promote thought or attitude adjustment, do not enable behavioral skills to be learned, or inspire interest in the subject. It is essential that new ways of teaching are developed to respond to learner expectations, such as lifelong learning, differing student and employer expectations and contemporary learning strategies (Holley & Dobson, 2008). Several previous researches pointed out many benefits of case study (Dooley & Skinner, 1977) simulation (Lean *et al.*, 2006; Mitchell, 2004; Fripp, 1997; Gilgeous & D'Cruz, 1996) and management games (Raia, 1966; Grimley *et al.*, 2011; Loveluck, 1975) regarding some courses (Jennings, 2002) or business curriculum. These benefits have been revealed empirically (Tanner *et al.*, 2012; Ho *et al.*, 2001). Beyond their differences, all these teaching supports emphasized on several points such as: meeting the real world, reaching student commitment, increasing student motivation and enhancing business school outcomes.

The debate on the effectiveness of these teaching methods remains interesting. These methods are effective for promoting skills and behavior rather than knowledge (Grimley *et al.*, 2011). Some faculty members prefer case study to simulation and management games; some prefer the opposite; still others proceed by conjunction and a combination of different devices (Knotts & Keys, 1997). Some studies concluded that students learn much better by simulation than by case study (Keys & Wolfe, 1990, Tanner *et al.*, 2012).

A number of studies revealed different barriers and limitations of using case study (Yin, 1989; Mintzberg, 1990; Argyris, 1980; Lean *et al.*, 2006), simulation (Chang, 1997; Faria and Wellington, 2004) and management games (Neuhauser, 1976). These barriers could be classified in different categories such as human (motivation, competencies, skills, capacities, group size,), technical (facilities, equipment, time, place), and cognitive (perception, beliefs,).

Much of the literature on teaching methods in business schools emphasized on advantages and limitations rather than on the implementation process and theoretical background (Burgoyne & Stuart, 1978) in a business context. Little has been done on the appropriateness and value added by these devices from employability and competencies perspectives and the link between different supports (Lane, 1995).

In Arab business schools the teaching methods issue seems to be neglected and ignored. This research tries to deal with the teaching supports from a value-added perspective rather than a technical one and assesses the use, enablers and barriers from a faculty member's perspective. It will give an overview of these methods' use in Al-Imam Business School Undergraduate program<sup>1</sup> (CEAS-IMSIU) from faculty member perspective.

These teaching methods could not have been apprehended as a means. In the absence of learning theories, faculty members will use these devices without efficiency and congruence. These teaching supports are an integral part of the whole curriculum or program: what are we teaching in management? They represented more than a manner of learning but school of thought. They also outline some assumptions about the desired manager: what kind of manager did the management or business program make? Did the program focus on corporate performance or stakeholders interests? (Grey, 2004).

### 2.1 Teaching Methods

Burgoyne and Stuart (1978) presented a wide list of teaching methods in management. According to their classification case study, simulation and management games were considered as more "effective for developing the skills relevant to different stages in management decision-making process". Gilgeous and D'Cruz (1996) added that these devices allowed active participation, instead of just seeing or hearing how to do something: offering a way of practicing what to do yourself. Lakewood Research and Training Magazine reported that among the top ten learning methods used in business, role playing (place 4), games/simulation (place 5) and case studies (place 6) were found on the list. These could be related to conceptual development regarding to learning theories, issues and trends in management and business education (Read and Kleiner, 1996).

#### Case study and Management Case Study (Harvard, 1910)

The term case study refers to a wide range of teaching styles (Dooley & Skinner, 1977). It can be used to:

- Gain an illustration of particular points, issues or managerial principles;
- Provide managers with a neutral situation in which they are free to explore problems;
- Relate theory to practice;

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<sup>1</sup>A program attracting and enrolling more and more students: the total number of students in 2015-2016 is 11700 undergraduate students, they enrolled in Business, Finance, Economics, Insurance and Accounting. In addition to other students who studied business subjects in other different programs.

- Confront the complexities of specific situations;
- Develop analysis and synthesis; self-analysis, attitudes, confidence, responsibility; interpersonal skills, communication and listening and judgment and wisdom and enliven teaching.

The case study according to some studies (Romm & Mahler, 1991; Osigweh, 1989; Christensen and Hansen, 1987; Dooley & Skinner, 1977) may gain the student's intellectual and emotional involvement and assist the long-term retention of understanding and bring realism into instructional settings.

### **Simulation or Management Simulation**

The simulation has been introduced by American Management Association in 1956. Many authors (Fripp, 1997, Feinstein & Cannon., 2002,) considered that it represents different advantages such as:

- Simulation for teaching and learning facilitating interactivity, collaboration, peer learning and active learning;
- Can allow experiments to be conducted within a fictitious situation to show the real behaviors and outcomes of possible conditions;
- Stimulates discussion of complicated topics, promotes decision making, heightens self-awareness and the examination of own behavior in relation to work group.

Previous studies (e.g. Feinstein & Cannon., 2002; Fripp, 1997; Hsu, 1989) have identified three specific types of simulation based learning: role play: participant act out the role of a character in a particular following a set of rules; gaming: the key elements entail interaction within a predetermined context, often involving forms of competition, cooperation, conflict and collusion; computer simulation: replicating system characteristics using mathematics or simple representations (Feinstein & Cannon, 2002, Hsu, 1989).

### **Management Games (1956- 1963) or Business Games**

The most famous game appeared in 1957, presented by American Management Association was a computer-based game. The second called the McKinsey game was published in 1958. Presently, we are seeing a proliferation of different games, with different classifications, fields and purposes.

According to Raia (1966) the terms "management game" "business game," and "management simulation" are used interchangeably in the literature. Dill (1961) considered that "management games rank as one of the most promising educational innovations of the last few years and perhaps the most significant one in management training since the case study was introduced four decades ago". However, this affirmation has to be put in its historical context.

Dill (1961) focused on the management games process. He considered that the management games contributions were multiples. First, games can be used to stimulate a student or trainee. Four conditions need to be respected in selecting, developing and conducting game: the game should fit the participants who will play; the game should be easy to administer with the given facilities; the lessons that the game teaches should be fairly obvious and pertinent to the contents of the rest of the program and the players should respect the game. The second contribution was that games could be used to simulate the job of manager and the problems he will face and the specifications (required abilities). Third contribution was that games could be used to assess, for example students training performance. The game could give valuable information to assess, for example manager potential, but could not predict who will do well on a real management job (Dill, 1961).

Gilgeous and D'Cruz (1996) focused on use and users (responsible for educating and training others) of business and management games. Elgood (1996) groups the uses under three headings: to prepare, to examine performance and to experiment. Greenblat (1988) enlarges uses to five headings: increasing motivation and interest, teaching and training, skill development, attitude change and self-evaluation or evaluation by others. Gilgeous and D'Cruz (1996) research results showed that the most important reasons for using management games is to maintain participant's interests. The second reason is because the games are effective in their purpose (enjoyment or having fun, teaching or conveying a concept, maintaining interest, teaching skill).

### **Teaching Methods Barriers**

Different barrier levels exist such as: teaching and learning support barriers (Lean *et al.*, 2006) and business or management education barriers (McFarlane, 2014; Garavan *et al.*, 1999). These barriers could be apprehended from both faculty member (Jennings, 2002) and learner or participant (McFarlane, 2014) perspectives.

Lean *et al.*, (2006) explored the barriers perception of using simulation, games and role-play from an academic perspective. They claim that, there are several barriers regarding to suitability (e.g. with the taught subjects,

student's interests); resources (e.g. technical and administrative supports, time) and risk of unknown (e.g. missed knowledge or information). Results showed that the use of such devices are not related to resource issues but rather determined by perception on suitability and risk. An academics' decision to use this device depends on professional judgment of benefit and risk more than on resource availability.

Another study (McFarlane, 2014) focused on barriers to excellence for business or management education in general. This author distinguishes between high-level barriers and low-level ones. The first ones concern accreditation, current business school educational philosophy, faculty education and scholarship, business school leadership, and risk aversion. The second barriers concern technology and access to resources, availability of business knowledge and information, funding, student readiness for business studies, student motivation, program design and rigor, and existing match between curriculum and practice. These barriers could join teaching supports in different points: educational philosophy, program design, linking the curriculum to practice and resources in general.

Some studies treated limitations of any device from technique or philosophy perspectives. Yin (1989) "comments that the case need not reflect a complete or accurate rendition of actual events". Mintzberg (1990) "proposes that the case method may be counterproductive, in teaching strategic management, providing a misleading simplification of the realities of the strategy process". Simulation may not duplicate the real world management situations (Wolfe, 1997), importing real situations or realism into the classroom, becoming teaching situation (Gruntz, 1995). As cited by Dill (1961) Management games or "gaming have been promoted and accepted, but sometimes with more enthusiasm than sense". This device is complicated and could "be relegated to a spot" (Neuhauser, 1976) if the users neglect some consideration regarding to its design, administration and testing.

### 3. The Research Methodology

For the purpose of conducting the current research the quantitative methodology completed with a qualitative aspect seemed the most suitable to be used. After developing the research instrument, it was tested and targeted a sample of the required population frame, consisting of all business department FMs.

The Questionnaire structure conception was based mostly on the literature review particularly (e.g. Lean *et al.*, 2006; Jennings, 2002). A documentary analysis of the main business curriculum syllabuses was performed in order to determine what teaching methods mentioned to be used.

The questionnaire was divided into 4 dimensions as follows:

1. General assessment of Teaching supports use;
2. Faculty members teaching supports use;
3. Barriers preventing from using the teaching supports; and
4. Demographic and professional data.

The questionnaire consisted of questions that were based on the five-point Likert scale (1-strongly disagree and 5=strongly agree) and nominal scales, and some open questions. Likert scale type questions were used for teaching methods benefits (19 items) and barriers (15 items), whereas nominal scales were used for demographic and professional variables; open questions were used particularly for examples of teaching methods. The instrument was reviewed twice to guarantee that the respondents understood all research dimensions and the measurements scales used in study easily. Based on the feedback provided, the instrument was adjusted.

The questionnaire was emailed to all department Faculty members, male and female and from different ranks (from Professor to Teaching Assistant). The FMs response rate was 78.5%; which could be considered as acceptable (Faria & Wellington, 2004). Of the total of respondents 50% were Assistant Professor; 25% were female and 70% had more than 10 years teaching experience. Moreover, 85% of the FMs held Ph. D. from Arabian university (Egypt, Sudan, Jordan and Tunisia). A minority of FMs held Ph.D. from foreign university (USA, Canada, France Britain, Australia and Malaysia). Nevertheless, the limited sample should be considered in interpreting the results.

### 4. Results and Discussion

The standard factor loadings reported in table 1 exceed threshold of 0.60; Cronbach's Alpha was greater than 0.8. All of the dimension to-total correlation coefficients range from 0.8 to 0.9 exceeding the value of 0.50. The results indicate that all research principle variables are reliable and exhibit an appropriate internal consistency; therefore, they could be applied on a research sample with a great degree of confidence.

Table 1. Validity and reliability research variables

Research Variables	Cronbach's Alpha	Validity coefficient	correlation
Teaching supports used by FMs	.835	.815	
Courses and teaching supports	.923	.882	
Benefits regarding to case study, simulation and management games	.945	.905	
Barriers regarding to case study, simulation and management games	.886	.836	
Demographics and professionals	.98	.915	

#### 4.1 Dimension 1: Teaching Supports Frequency Use

The results in Table 2 show that lecturing and Power point Slides is the most prevalent amongst the teaching supports listed with more than 80% frequency use. This predominance has been revealed by many studies (Economic department: CEAS: IMSIU: KSA, 2016) and (Business Department: Kuwait University, 2016). It could be explained by the simplicity of use and it being the oldest of these teaching supports. Bligh (1972) adds that a lecture method serves purposes that the written words cannot. This finding echoes that the active methods remained "a spot" (Neuhauser, 1976).

The process involved in the use of what Hawrylyshyn (1967) called participative methods remained embryonic. Due to the fault of institutional willingness and strategy, it seems that FMs and the college are concerned by the quantity (11700 students: 50 average per group) rather than the quality.

The level of case study, simulation and management games use are generally low in comparison with lecturing and PowerPoint slides. All FMs considered using such teaching supports as relevant. This interest was not followed by tangible actions with could be explained by some barriers.

Based on Pearson Chi 2 analysis the relationship between lecturing and PowerPoint Slides and case study was significant (\*less than 10%). However, it is not with the other supports. The different relationship combination between case study and management games, simulation, role playing and video games; on the other hand between management games, simulation, playing games and video games; and finally the relationship between simulation, playing games and video games were significant too (less than 1% \*\*\*). These results showed that FM could use lecturing and PowerPoint Slides independently of other teaching supports. However, case study, simulation, management games, role playing and video games were different but complementary.

Table 2. Teaching supports frequency

Teaching support	Frequency	Valid Percent	Cumulative Percent
Lecturing and PowerPoint Slides	35	34.7	34.7
Case Study	30	29.7	64.4
Business Game	5	5.0	69.4
Simulation	12	11.9	81.3
Role Playing	7	6.9	88.2
Video games	3	3.0	91.2
Others	3	3.0	94.2
Total		100.0	

#### 4.2 Dimension 2: Teaching Methods and Courses

According to a ranking of the courses taught, in Table 3 the results revealed that some courses required more FMs than others. These courses (from 1 to 5) were concerned with all students enrolled in College of Economics and Administrative Sciences (CEAS-IMSIU) and attracted more FMs. The course one and four and five concerned students outside of the CEAS.

It seemed that the teaching supports are more used in basic courses than major ones which could be considered as more appropriate for these methods. Even if this use is not systematic, this research revealed a contradiction that could be explained by a cognitive bias.

The most used teaching supports depend on any course. For example, management games seemed to be frequently used most in Strategic Management. Case study and simulation are more frequently used in Management Principles, Organizational Behavior, HRM, Marketing Principles and Strategic Management. The recourse for these methods was less intense even missing for some courses such as: project management and production management. These results confirm that course nature determines the teaching supports used.

The teaching methods are not used independently of FMs and courses. For the same course, it seemed that FMs did not automatically use case study: four FMs taught entrepreneurship and all used case study, only one used

simulation and management games. 18 FMs taught HRM, only eight used case study, the rest did not. Only 2 FMs used management games. 25 FMs taught OB, only half used case study. Amongst 14 FMs taught SM, only 5 frequently used case study, 2 FMs frequently used simulation and management games. Even for major courses the use of active teaching supports was not generalized.

Table 3. The Relationship Between teaching methods used and business courses

Courses	Courses taught	Case Study	Simulation	Management games
Management Principles	1	1	1	3
Organizational Behavior: OB	2	2	4	3
Human Resources Management, HRM	3	3	3	5
Marketing Principles	3	3	2	1
Total Quality Management	5	6	6	6
Strategic Management, SM	6	3	4	1
Management Information System	7	10	7	11
Quantitative methods in management	8	8	7	6
Entrepreneurship	8	8	10	6
Production Management	8	10	10	9
Management Leadership	11	7	8	9
Project Management	12	12	12	11

Relationship between courses and teaching methods: Frequencies

Modules	Courses Taught		Teaching supports								
			Case study			Simulation			Management game		
	Yes %	No %	Frequentl y Used%	Rarel y Used %	Not used %	Frequentl y Used%	Rarel y Used %	Not used %	Frequentl y Used%	Rarel y Used %	Not used %
Entrepreneurship	12.2	87.8	12.2	0	87.8	4.9	4.9	90.2	4.9	4.9	90.2
Human Resources Management	39	61	29.3	7.3	<b>63.4</b>	19.5	7.3	73.2	7.3	4.9	87.8
Management Information System	14.6	85.4	7.3	4.9	<b>87.8</b>	2.4	9.4	87.8	0	7.3	92.7
Management Leadership	19.5	80.5	14.6	4.9	<b>80.5</b>	9.8	0	90.2	2.4	7.3	90.2
Management Principles	65	35	41.5	19.5	<b>39</b>	39	4.9	56.1	9.8	9.8	80.5
Marketing Principles	39	61	29.3	2.4	<b>68.3</b>	26.8	4.9	68.3	12.2	4.9	82.9
Organizational behavior	58.5	41.5	31.7	17.1	<b>52.2</b>	17.1	14.6	68.3	9.8	9.8	80.5
Production management	12.2	87.8	3.7	4.9	<b>87.8</b>	2.4	2.4	95.1	0	2.4	97.6
Project management	7.3	92.7	7.3	0	<b>92.7</b>	0	7.3	92.7	2.4	2.4	95.1
Quantitative methods in management	12.2	87.8	12.2	0	<b>87.8</b>	9.8	7.3	82.9	4.9	4.9	90.2
Strategic Management	29.3	70.7	29.3	4.9	<b>65.9</b>	17.1	7.3	75.6	12.2	2.4	85.4
Total quality management	31.7	68.3	19.5	12.2	<b>68.3</b>	12.2	4.9	82.9	4.9	0	95.1

4.3 Dimension 3: Teaching Methods Benefits from FMs Perspective

The results in Table 4 showed that the teaching supports benefits differ from one support to another which confirms

that these devices are not interchangeable. The case study, simulation and management games benefit are hovering around excitement, enjoyment, application, experience involvement and realism which represented the highest levels of agreement. However, some statements did not get a strong score agreement, for all these teaching methods such as: facilitation, retention, fun, and thinking. Some benefit such as: fun, application, and experience gets a strong score for one teaching support more than another. Based on our results, we faced the difficulty to determine some main benefits around each teaching methods which could be explained by cognitive explanation. FMs have different perceptions based on different backgrounds.

Table 4. Teaching methods benefits

Statements	Case study		Simulation		Management game	
	Mean	Statement Ranking	Mean	Statement Ranking	Mean	Statement Ranking
Students feel that ... is exciting.	4.71	1	4.03	15	3.26	19
Students feel ... is more fun than participating in traditional lecture.	4.59	2	4.11	10	3.74	2
Students feel ... is effective in helping them to see where decisions will lead their company.	4.39	8	4.19	6	3.51	14
As a faculty member, I feel ... is more fun than participating in traditional lecture.	4.36	11	3.95	18	3.56	11
... is helpful in applying theories that are taught in my discipline.	4.54	3	4.14	9	3.53	13
... is effective in creating a learning context where students are willing to open their minds to the course subject matter.	4.54	3	4.41	1	3.71	6
... is effective in getting students to apply lessons learning in my course.	4.5	7	4.31	4	3.69	7
... makes learning more enjoyable.	4.51	6	4.41	1	3.81	1
... makes the material in my course easier to understand.	4.28	12	4.22	5	3.51	16
... provides an educational experience where students can learn about inter-functional coordination within a business.	4.38	9	4.08	13	3.46	18
... enables students to experience competition within a marketplace.	4.13	16	3.97	16	3.49	17
... allows students to think for themselves.						
... allows students to think for themselves.	3.97	18	4.11	10	3.6	10
... provides an opportunity for students to apply theory in real-world situations.	4.38	9	4.11	10	3.56	11
... provides students with decision making experience	4.22	14	3.97	17	3.73	5
... provides a tangible feel for running a major operation against aggressive competitors.	3.92	19	3.78	19	3.51	14
... gains the student's intellectual and emotional involvement.	4.08	17	4.06	14	3.74	2
... assists the long-term retention of understanding.	4.18	15	4.19	6	3.63	9
... stimulates discussion of complicated topics	4.54	3	4.41	1	3.66	8
brings realism into instructional settings	4.23	13	4.14	8	3.74	2

#### 4.4 Dimension 4: The Teaching Methods Barriers from FMs Perspective

The barriers differ from one teaching support to another as can be seen in Table 5. Contrary to the benefits, there are more common barriers between case study, simulation and management games. The most mentioned barriers by respondents could be classified into three categories: technical and logistics (poor supports and lack of resources) and organizational barriers (higher workload preparation), this constraint was also highlighted as the most significant barrier in Chang's research (1997) and teaching supports limitation. Some barriers existed but did not occupy the same degree of importance such as negative attitude against these methods, complication and awareness of contents. Some barriers were mentioned timidly such as lack of incentives.

Other barriers were mentioned such as a large student group size which could be a reality in some courses, 50 male students and 90 female students. The lack of case study, simulation and management games in Arabic language: its translation required more effort and hard work which was not necessarily recognized nor rewarded. Beyond the language issue, a lack of and insufficient amount of appropriate teaching supports to Arab and Saudi companies. The last kind of barriers could be related to student awareness and abilities. Time and appropriate materials were also considered by some FMs as barriers. Some pointed out that the University should be considered as an obstacle for using these supports, due to an inability to invest or encourage staff to acquire the appropriate material.

Table 5. Teaching Methods Barriers

Statements	Case study		Simulation		Management game	
	Mean	Statement Ranking	Mean	Statement Ranking	Mean	Statement Ranking
I am satisfied with my current usage of ...	4	1	3.53	5	2.74	10
... is not suited to my courses.	2.38	12	2.76	11	2.63	11
There are no available ... materials for my courses.	2.58	11	3.05	10	3.11	7
Appropriate ... materials are insufficient	2.95	9	3.51	6	3.4	6
Students will not react well to ...	2.62	10	2.7	14	2.54	12
Lack of skills/competencies by faculty member to use ...	3.06	7	3.13	8	3	8
I have a negative attitude toward ...	1.97	15	1.95	15	1.78	15
The amount of class time required for ... is too long.	3.03	8	3.05	9	2.89	9
Preparation workload of ... is higher than the conventional lecture.	3.74	3	3.55	4	3.47	5
I face a lack of resources (human and non-human) to use ...	3.16	4	3.66	3	3.62	2
Technical support for ... is poor.	3.14	5	3.81	2	3.97	1
Incentives of using ... does not exist.	3.08	6	3.5	7	3.58	4
I am not aware of ... contents.	2.33	13	2.53	13	2.5	13
I feel that using ... is complicated	2.3	14	2.56	12	2.31	14
... may provide a simplification of the realities	3.94	2	3.89	1	3.6	3

The majority of FMs suggested reducing the student size group according to the level and the topic. They highlighted facilities and resources (materials, software). Moreover, FM training sessions need to be held by experts, which could be considered as motivation and an incentive mechanism. The respondents added that there is a need to develop appropriate teaching supports adapted to language and context. The University should allocate appropriate resources. These devices are not free. They need to be related to the learning outcomes (undergraduate profile: in term of knowledge, skills and behaviors).

The majority of the FMs (64%) did not answer the question about examples of case study, simulation and management games. However, a few examples were mentioned such as: prisoner dilemma (Nash: games theory), Dell case study; both were used particularly in strategic management course. Neither examples regarding case study and simulation mentioned by FM who taught management principles, organizational behavior, HRM and marketing principles and even they declared that they are frequently using these supports. It seemed that the majority of FMs are unfamiliar with these teaching supports and methods.

#### 4.5 Dimension 5: Demographic and Professional Antecedents

##### 4.5.1 Teaching Methods Gender and the Age

There are no statistical differences in using teaching supports according to Gender and Age.

##### 4.5.2 Teaching Methods and Academic Rank

There is a statistical difference in using Lecturing and PowerPoint Slides) according to academic rank.

#### ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Lecturing and	Between Groups	1.672	5	.334	3.392	** .013
	Within Groups	3.450	35	.099		
	Total	5.122	40			

##### 4.5.3 Teaching Methods and Teaching Experience

There are no statistical differences in using teaching supports according to teaching experience.

##### 4.5.4 Teaching Methods and Professional Background

There is a statistical difference in using Lecturing and PowerPoint Slides and Projects according to professional experience.

		Sum of Squares	Df	Mean Square	F	Sig.
Lecturing..	Between Groups	3.622	18	.201	2.951	***.009
	Within Groups	1.500	22	.068		
	Total	5.122	40			
Others	Between Groups	2.030	18	.113	3.309	***.004
	Within Groups	.750	22	.034		
	Total	2.780	40			

#### 4.5.5 Teaching Methods and Place of Degree

There is a statistical difference in using Lecturing and PowerPoint Slides and simulation according to place of degree.

		Sum of Squares	Df	Mean Square	F	Sig.
Lecturing and	Between Groups	3.475	10	.347	5.449	***.000
	Within Groups	1.467	23	.064		
	Total	4.941	33			
Mgt games	Between Groups	10.019	10	1.002	2.255	*.052
	Within Groups	10.217	23	.444		
	Total	20.235	33			

There are statistical differences in using teaching supports according to professional variables (professional experiences and place of degree). The results showed that the lecturing and PowerPoint Slides were the most prevalent amongst the listed teaching supports. This support seemed more effective for promoting knowledge rather than skills and behavior (Grimley *et al.*, 2011). These teaching supports are not neutral (Burgoyne and Stuart, 1978). They are considered as a vehicle of management and manager conception.

Based on Manova analysis a significant relationship was found between teaching supports, age (0.0001) and rank (0.0581) in one side and between teaching supports, professional experience (0.000) and rank (0.000). The gender variable seemed to hold no effect.

In the light of various learning theories, these teaching supports could be classified into two categories: traditional and participative methods with different assumptions regarding the business school (education for or about business) and outcomes (manager or technician).

This study was carried out to provide empirical data on use and barriers of teaching supports in undergraduate business programs. The research showed that the traditional teaching supports remained predominant. It also revealed that the recourse for teaching supports in business programs depends on course feature or faculty member's profile. Case study and simulation was most intensively used in some courses, such as management principles, organizational behavior and marketing principles and less used in others, such as project management and management information system.

Case study, simulation and management games were not systematically used but depended on the course and FMs profile. However, traditional teaching supports remained predominant in Business undergraduate program. This gap could reflect an inadequacy between management conception and outcomes (as an activity and based on knowledge). The focus seemed to be on the curriculum rather than on the teaching supports and methods.

Case study, simulation and management games are more used in management basic polarizing large groups (average 50 students each group) than in major courses. However, major courses seemed to be more appropriate for using these teaching supports. A few examples of teaching supports were mentioned which could be interpreted as a sign that these participative methods were not embedded in teaching practice. Different reasons related to the environment and the situation could be acknowledged.

Second, results showed that the benefits differed from one teaching support to another. However, a few common points such as fun, involvement, application, experience, discussion and interaction were discovered. It showed also that the barriers were particularly related to human rather than technical. This result confirms (Lean *et al.*, 2006) that faculty member's decision to use this device depends on professional judgment of benefit and risk more than on resource availability.

Third, the correspondence analysis between teaching supports and demographic variables (age and gender) revealed an insignificant link. Some professional variables were insignificant (teaching experiences). However, the relationship between teaching supports and rank, professional experience and place of degree were significant regarding to some teaching supports: lecturing and PowerPoint slides, simulation and projects.

The theoretical contribution of this study is twofold: first, it confirms the focus on education for business revealed by Lucas and Milford (2009), which means 'on what is studied?' According to Gardner's idea (2008), the business program did not cultivate the required minds in business world such as being disciplined, synthesizing,

creating, respectful and ethical. Second, it confirms the gap between the development made in business education and the current, such as the new trends and practices in CEAS.

This study offers strong managerial implications. Based on our findings, we would advise decision makers in the college and the department to rethink not only the curriculum, the FMs recruitment policies, but also the required and desired outcomes. Moreover, the main stakeholders in the business program need to rethink the process entirely: the input, the process and the output of the business program.

## 5. Conclusion

This research has highlighted the business teaching supports in aspects of use, benefits and barriers related to the main taught courses in Undergraduate Business Program (CEAS-IMSIU). The results showed that Lecturing and PowerPoint Slides were predominantly used even though they were considered in the literature review as less effective (Caldwell, 2007; Knight and Wood, 2005), and disliked by students (Sander *et al.*, 2000). However, It could be appropriate for knowledge transmission rather than for promoting attitude or skills (Bligh, 2000). This study revealed that case study and simulation were particularly adopted on some courses, but not systematically, depending on faculty member (rank, experience, place or degree).

This research revealed a paradox between what should be used and what is really used. The contradiction between the normative level and the descriptive level seemed to be more visible through the respondent's response about the case study, simulation and management games examples currently and effectively used which remained opaque. The teaching supports barriers are more than technical but related both to FMs background and the institution strategy. Finally, we would like to indicate some limitations of the present study that suggest new research directions: (1) the first limitation relates to the particular context of an undergraduate business program in Saudi university. (2) It is limited to some teaching supports from using and barriers perspective. It is concerned exclusively with the faculty member's point of view. (3) This research could be enlarged to other college of economics and administrative sciences or Business Schools. It could also integrate other stakeholders' point of view such as, students, management and board members. Despite these limitations, this study has made strong theoretical and practical contributions. The current findings provide decision makers and FMs with an overview of teaching practice uses and barriers, which constrain performance outcomes.

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