

**Title:** An Interactive Learning Approach to Accounting Classes

**Field of study:** Accounting

**Purpose:** Dissertation for obtaining the Degree of Master in Business Administration (The Lisbon MBA International)

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## An Interactive Learning Approach to Accounting Classes

### Abstract

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This working paper explores the use of interactive learning tools, such as business simulations, to facilitate the active learning process in accounting classes. Although business simulations were firstly introduced in the United States in the 1950s, the vast majority of accounting professors still use traditional teaching methods, based in end-of-chapter exercises and written cases. Moreover, the current students' generation brings new challenges to the classroom related with their video, game, internet and mobile culture. Thus, a survey and an experimentation were conducted to understand, on one hand, if accounting professors are willing to adjust their teaching methods with the adoption of interactive learning tools and, on the other hand, if the adoption of interactive learning tools in accounting classes yield better academic results and levels of satisfaction among students. Students using more interactive learning approaches scored significantly higher means than others that did not. Accounting professors are clearly willing to try, at least once, the use of an accounting simulator in classes.

**Keywords:** accounting game, computer-based simulation, accounting simulator, game-based learning, interactive learning approach.

## An Interactive Learning Approach to Accounting Classes

### Research problem

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*“Today’s college generation grew up with video games from infancy. They can process more information not only faster but in a different way than most experienced academicians can. Some educators see games as a useful and perhaps even necessary learning environment suitable for learners of all ages. However, there are obstacles to this blending. One issue concerns the translation of the fun elements in games to the settings of institutional learning where intellectual content is king”* BLUNT (2006: 1).

A preliminary research conducted for the Entrepreneurship course of the Lisbon MBA 2013 International Program raised some interesting issues regarding the use of simulations in classes (Annexes 1 and 2). Firstly, there are some interactive learning tools employed successfully mainly in finance, strategy, marketing, and operations courses. Secondly, the accounting courses are taught using traditional learning tools (paper-based cases). Thirdly, it seems that there is room for the development of an accounting interactive learning tool, such as an “accounting simulator”, not only because of the expected growing market for games, *gamification*, and simulations<sup>1</sup>, but also because there is not a tool with enough credibility to be adopted massively in accounting classes, according to the feedback received in our surveys and to the analysis performed of accounting courses’ syllabus in the main business schools (Annex 3). Furthermore, the preliminary research pointed out that an accounting simulator enhances knowledge acquisition, increases interest in accounting topics, and improves engagement among students and between students and professors.

This standard academic thesis intends to contribute to further our understanding of how an interactive tool can enrich the learning process of accounting concepts, better preparing students for organizations’ real life management, and what features should be considered in an interactive learning tool to allow its massive adoption by the academic community. To validate this research goal (question), we will start by performing a literature review in order to better understand the current status of the research so far. We will, then, formulate a set of testable hypothesis to validate the research question and collect the necessary data.

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<sup>1</sup> GSV EDU (2012): global education expenditures in gaming growing at a compound annual growing rate of 30% until 2017.

## An Interactive Learning Approach to Accounting Classes

### Relevance of the research for business organizations

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We would like to highlight the relevance of this thesis' subject to the academic and business worlds. In a society that offers so many stimuli and layers of information, improving learning methods is critical in order to capture more attention from students and achieve better levels of perennial knowledge. As a consequence, the perceived value of the students increase and, consequently, the perceived value of the universities able to “produce” such students also increase.

In this scenario, the so called *gamification* of learning might have an important role in the process because it usually shifts the role of the student from a mere recipient of information to someone in control of the learning process. This learning-centered approach focuses on empowering students through flexibility of thinking and stimulation of adaptive response to a dynamic environment, mimicking the real-life process of decision-making. Because of the emotional engagement, these experiences become more significant within the student's memory, generating more commitment and higher levels of energy in class, ultimately resulting in richer experiences that add value to professional life.

Finally, we think that the relevance of this thesis is reinforced by its specific focus in the accounting courses. Although usually perceived as a boring subject, which creates an additional challenge to the development of an interactive tool, accounting is an essential part of any business program and a subject that any successful manager must be familiar with.

## An Interactive Learning Approach to Accounting Classes

### Literature review

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This part of the working paper offers a critical review of literature in order to provide the theoretical perspective of learning approaches to accounting classes. As such, it presents: the description of different models of teaching and the role of interactive learning approaches; and the results from the application of interactive learning techniques in accounting classes (case-studies).

#### Models of teaching and interactive learning approaches

MCCLOUGHLIN et al. (1995) describes two general models of teaching and learning: communication and didactic models. The didactic model can be described as the mere transmission of facts to the students. In this model, what matters is the knowledge of facts and syllabus' contents – the instructor has full control over the content and the style; learners have a quite passive role in the process. Thus, teaching is focused in communicating the message and not in “clients' needs”.

The communication model views learning as an outcome of speech and negotiation.

*“Within the communication model, the validation of good teaching is not the acquisition of facts, but the active and constructive activity of the learners in the developing autonomy, responsibility and control of what and how they learn. This view is consonant with cognitive conceptions of learning which give centrality to the role of the student in negotiating meaning.”* MCCLOUGHLIN et al. (1995: 4)

In the same line, TAN et al. (2013) points out two different approaches of teaching and learning: the traditional passive lecturing and the cooperative learning (teamwork to achieve a common goal), in which students can improve their ability to apply knowledge, particularly in complex problems. A more cooperative learning approach is also recommended by the Accounting Education Change Commission, which stated that accounting courses should focus on the application of basic concepts to real-world environments. Furthermore, SPRINGER AND BORTHICK (2004: 278), agree that

*“Students need to learn to solve the new, ill-structured problems that will arise in practice. Compared to well-structured problems, ill-structured problems have no “correct” solution because they cannot be described with a high degree of completeness, cannot be resolved with a high degree of certainty, or elicit to disagreement from experts about the best solution. Students need opportunities to learn to solve problems by constructing their own representations of the situations and creating their own understandings of what it means to develop and present acceptable solutions”.*

This argument is even more relevant nowadays. In agreement with BLUNT (2006), LIPPINCOTT AND PERGOLA (2009), and NITKIN (2011), current Gen Y students grew up with cable television, computer games, the Internet, and cell phones. Thus, traditional teaching methods tend to be less effective: Gen Y students learn most effectively when they are in control of their learning and actively engaged. As a result, the traditional class format, based on problem sets and lectures, is most of the times inadequate in meeting the learning need of current students.

## **An Interactive Learning Approach to Accounting Classes**

Notwithstanding, NITKIN (2011) and TAN et al. (2013) describe that professors, particularly in business schools, have been trying for long to find ways to include hands-on tools in classroom activities and bring the real world to classroom learning (e.g. business plan preparation exercises). Simulations, for example, turn students into active participants, leading to a more positive attitude toward learning, improving engagement, and promoting cooperative learning.

In fact, computer-based business games, simulation games, game-based learning or other expressions for the same definition are broadly used in bibliography as a strong vehicle to promote the active or cooperative learning. MOORE (1967), DECOSTER AND PRATER (1973), TANNER AND LINDQUIST (1998), HOFFJAN (2005), BLUNT (2006), RAFAELI et al. (2007), and ALBRECHT AND GREEN (2008) mention simulation games as a way to heightens student motivation, to increase problem-solving or decision making skills, to boost a positive attitude towards subject matter, to integrate several learning pieces, to bring real-life dynamic and unstructured environments to the classroom, to support perennial remembrance, and to give direct and immediate feedback with the possibility to be repeated (trial and error). Additionally, GREENBERG et al. (2010) describes simulations has effective teaching techniques because they provide a concrete basis for discussion and illustrate the major academic principles. Active learning techniques are stronger than traditional methods of teaching in terms of knowledge retention and application, and motivational outcomes. Finally, BEN-ZVI AND CARTON (2007) indicate that the efficacy of a business game as an educational tool is three-fold because it provides students an opportunity to apply immediately classroom concepts to real-life management problems, in a clear and logical way, it gives students the opportunity to practice decision-making in a laboratory environment, with little risk involved (business games are the cadavers of management students), and it forces students to think independently, helping them learning how to learn.

However, KEYS AND WOLFE (1990), FARIA et al. (2009), and SHELDON (2012) remind us that business games has been around for long time ago. The first business simulation games were introduced in Europe in 1932 (Ligovo typewriter factory) and in North America in 1955 (Air Force supply system). In 1956, Top Management Decision Simulation was the first widely known business game. In terms of technological advancements, the major landmarks for business games evolution are the use of mainframes in late 1950s, the personal computer in 1984, the Windows operating system in 1985, the World Wide Web, and the multiple platforms and virtual reality more recently. In fact, it was the personal computer boom that conducted to a viable commercial game industry and profitable educational software industry.

Consequently, it is important to point out that although current Gen Y students are, by definition, game-oriented, professors are typically in a different pace. As PERROTA et al. (2013) summarizes, while professors are generally positive about simulations in classroom, they require very strong evidence of its impact before replace traditional learning styles. Moreover, HOFFJAN (2005), RAFAELI et al. (2007), BAEK (2008), and TAN et al. (2013) comment that simulations are often avoided by professors

## **An Interactive Learning Approach to Accounting Classes**

mainly because of their large time consuming attributes, complex logistics to manage classes, and implicit difficulty to simulate social situations. On the other hand, MCKEE (2004: 1) states that *“the only thing holding accounting professors back from truly innovative instruction is our own lack of creativity”* and SPRINGER AND BORTHICK (2004) assess that an initial negative reaction from professors to simulations is explained by their unfamiliarity with this type of tools.

### Case-studies

As described above, professors have been in the process of finding ways through which they can be in a position to not only increase class participation and motivation but also relate classroom learning to the real world. As such, different application cases have been described for many years, which we are summarizing in the following pages.

BRUNS (1965) shows the results of the application of a game as a regular class assignment, where students are invited to use accounting data for analysis and decision-making, through the use of Drillrite Corporation, a non-computer general management game. Students have responded with very enthusiasm and the experience has shown that the game allows students to become more familiar with real-life problems of data development and gives them relevance. Thus, business games can be effective teaching tools in accounting classes.

MOORE (1967) presents a controlled experiment to provide evidence whether production games are more effective than case studies to teach production concepts and techniques. The results did not support a general statement that games are more effective for learning than cases. Additionally, some data were collected by survey which points out that games increases motivation when compared to cases, which might result from the competition effect.

DECOSTER AND PRATER (1973) designed an experience to apply a business game in introductory accounting. Students worked in groups and assumed decisions about pricing, purchasing, production, and promotion. An attitude questionnaire was applied and a common exam was given to classes using the simulation and classes not using the simulation. No significant differences found between focus and control groups. Thus, the authors conclude that they can no longer believe that a game will provide significant differences in performance or attitude in introductory accounting.

WOLFE (1973) presents a study undertaken in a business policy course to determine comparative learning effects between using a management game instead of a written traditional cases from a popular casebook. Course knowledge was evaluated by administering a 9-question examination before and after classes. The conclusion was that students in games alone classes show better results than students in cases alone classes.

WU (1986) experiment the use of an electronic spreadsheet software to solve cost and financial accounting problems. As a result, the vast majority of the students included in the experiment indicated that the software tool added intellectual stimulation to learning.

## **An Interactive Learning Approach to Accounting Classes**

KNECHEL (1989) used the Monopoly as a business simulation game in an MBA class. Students were instructed to play for a number of turns and they used good accounting procedures to track the various events. Students' reported much satisfaction with the game, as well as excitement and competition effect about the game. Additionally, it was observed that unusual circumstances resulting from the game originates opportunities to discuss business versus accounting interaction that do not arise in practice sets.

ALBRECHT (1995) describes the application of a simulation game in 2 different courses, Managerial Accounting and Intermediate Accounting I, where students are required to prepare financial statements after playing Monopoly. Students were surveyed and the satisfaction with overall experience is very high, with reuse of simulation game clearly recommended.

TANNER AND LINDQUIST (1998) present the experience of using Monopoly, in a financial accounting course of a university accounting major program, to record the financial activity of a business. After project completion, students reported generally that their interest in the course was enhanced.

SPRINGER AND BORTHICK (2004) used a simulation in an introductory accounting course, where students were immersed in an evolving business for which they need to give advises based on accounting principles' application. In general, students were enthusiastic about the new thinking abilities afforded. With respect to quantitative evaluation, exam scores were higher for students with critical-thinking experience.

FOWLER (2005) compares the use of traditional lecture format to the use of an active learning format, where a simulation game is applied. The experience was conducted in an Introductory Financial Accounting class, during two semesters, by dividing students among 2 different groups: the treatment group and the control group. To measure learning students were asked to complete a quiz and the results indicate very little difference between groups. However, anecdotal evidence indicated that students enjoyed more the active learning environment.

HOFFJAN (2005) presents the introduction of Calvados, a business game based on Horngren's textbook that simulates the production of apple brandy and plays with opportunity costs and optimal internal transfer prices, among 150 students in 2 countries and 3 different accounting classes. Learning outcomes were evaluated with a brief questionnaire before and after the simulation. The game improves level of knowledge, but results did not show a significant change. It also increases student sensitivity to problem-solving and it is considered by students as an excellent tool to use in classes.

ROTH (2005) put students of a management accounting course playing with LEGO bricks in order to improve their knowledge of manufacturing processes. The goal is to determine costs of completed and transferred-out production and costs of work-in-process inventory. A survey was conducted and generally students believe the exercise is a good use of class time and it accomplishes objectives.



## **An Interactive Learning Approach to Accounting Classes**

BLUNT (2006) presents a causal-comparative study conducted among students of a university in Arlington, VA, in order to test the relationship between the use of video games and learning. The experience involved the application of a commercially available game (Virtual U) to teach principles of management to an undergraduate management course. All students, the ones participating in the experience and the others not participating in the experience, were tested using similar testing materials. The main conclusion was that students in classes using a business simulation game had significantly higher means than classes that did not.

LIPPINCOTT AND PERGOLA (2009) designed a simulation that requires students to perform 3 job functions in a manufacturing environment: role of inventory manager; role of production manager; and role of cost accountant. Simulation was designed to mimic a real-life production environment and includes playing with Legos. Students' feedback supports that the simulation is perceived as an effective learning strategy and enhanced their understanding of accounting for job costing: visualizing the process improved their learning.

GREENBERG et al. (2010) presents the use of a manufacturing simulation, a hands-on approach, to teach job-order costing in managerial accounting classes in undergraduate and MBA classes. Students often do not understand job-order costing because they have difficulties in understanding the manufacturing processes. Thus, the experience involves using Lego blocks to experience a manufacturing operation and it involves the manufacture of a table, where cost accumulation is illustrated using actual and normal costing systems. Students were surveyed and the results show that the simulation is a meaningful and a valuable learning experience.

LIGHTBODY (2010) addresses the perceived difficulty and boring management accounting concepts by introducing a factory simulation exercise (paper-rabbits) in classes in order to present product costing and calculate the cost of finished goods and work in process. Students act as factory employees, in 4 different departments, to produce rabbits. Evidence received through feedback from students and academics shows a number of benefits from the experience: an apparently increase in students' comprehension of management accounting subjects; an enhanced participation and enthusiasm; an increased interaction with the tutorial, which provided a more stimulating environment to teach and learn.

NITKIN (2011) prepared a paper to document his experimentation in using Hasbro's Game of Life concepts in introductory accounting classes, to practice transaction analysis, record adjustments, and create financial statements. A survey was distributed to receive feedback and the result was that the game was viewed by students as a value-added exercise. No quantitative impact analysis was made.

CAPELO et al. (2012) presents a research conducted among 95 undergraduate students of 2 universities in Lisbon in order to test the effectiveness of teaching the Balanced Scorecard using a business simulation: a realistic simulator of a telecommunications firm where critical decisions, such as the

## **An Interactive Learning Approach to Accounting Classes**

investment in infrastructures or the recruitment of employees, must be taken. Students answered the same questionnaire in the first and last sessions and, in general, results showed that simulation enhanced understanding of concepts.

KROM (2012) explores the use of FarmVille in a managerial accounting course to facilitate active learning. Students run a virtual farm where cooperation with other “farmers” is essential. Profit and loss analysis and decisions about planning and budgeting or spoilage and capital investment are also key drivers in the game. The game was applied to 1 out of 3 sections of a managerial accounting semiannual course and formal surveys were conducted. In FarmVille sessions, spontaneous discussions about profit maximization and opportunity cost cropped up during breaks and a number of in-class materials were re-designed using FarmVille-concepts. More than 4/5 of students felt that the use of FarmVille increased very much or extremely their understanding of course contents. The development of positive student relationship is also an important outcome of this experience.

RILEY et al. (2013) conclude, from their experience, that simulations help prepare accounting students by refining decision-making skills. Simulations “*pushes students to work in unstructured environments where new problems emerge throughout the exercise, and some of those problems are of the students’ own doing; less-than-optimal decisions in one period result in unanticipated challenges in the next.*” [RILEY et al. (2013), p.821]. However, instructors have a steep learning curve in complex and comprehensive simulations because of many possible outcomes for a given individual decision.

TAN et al. (2013) created a cooperative learning environment by introducing in the curriculum of an MBA program a group project where students were requested to create their own business and present it to the class. The statistics from course evaluations point out that students of the new curriculum overwhelmingly approved how classes were taught, with the group project being the best element to achieve course learning objectives. Moreover, the comparison of final examination grades between classes using the traditional and the new curriculum were done and the result was a significant difference in favor of the new curriculum.

## An Interactive Learning Approach to Accounting Classes

### Data sources and methods used to collect data

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#### Research question

How can interactive tools enrich the learning process of accounting concepts, better preparing students for organizations' real life management, and what features should be considered in interactive learning tools to allow its massive adoption by the academic community.

#### Hypothesis

- H1: the adoption of interactive learning tools in accounting classes will yield better academic results than pure traditional learning tools;
- H2: the students' level of satisfaction with the course materials is higher in the accounting classes where interactive learning tools are adopted;
- H3: the Accounting Professors of Business Schools are willing to adopt interactive learning tools.

#### Data sources and methods

- Experimentation through the application of interactive materials to a Cost Accounting class of the Undergraduate Degree in Management at Catolica Lisbon School of Business and Economics, with subsequent measurement of academic results and levels of satisfaction;
- Survey sent to Accounting Professors of Top Business Schools in the United States of America and Europe, according to the annual rankings published by BloombergBusinessweek and Financial Times (Annex 3).

#### Experimentation

The first question we had about building an experimentation, as described above, was related with the kind of interactive tools available and which one(s) is(are) more adequate to test the hypothesis (H1 and H2) of this working paper. Most recent trends point out to the gamification of learning. However, it is important, at this stage, to describe and clarify concepts regarding interactive learning tools in order to better understand which tool is more adequate.

#### *Game, gamification or simulation?*

Games are abstract systems where players are challenged to get a quantifiable outcomes, often resulting from an emotional reaction, according to KAPP et al. (2014). A game has a set of rules and involves interactivity and feedback. Additionally, GEE (2008) states that games have usually a win state and the role of players is to control elements inside a simulation, such as an avatar, squads, arms, and shapes.

Gamification is a different thing. Gamifying the contents of an accounting class, for example, means using game-thinking to motivate people to action and promote learning. KAPP et al. (2014) defines gamification as a piece of a puzzle, where the puzzle is the game, and articulates that gamification is

## An Interactive Learning Approach to Accounting Classes

very effective to encourage learners progressing through content, drive innovation, influence behavior, and motivate action. There are countless recent examples of the application of gamification.

KAPP et al. (2014) present some case-studies, from the use of a quiz-type game to teach concepts to a sales team, to the use of an online platform game to teach negotiation skills, with related benefits, such as:

*“I’m a pretty competitive person so challenging myself to get one of the top scores added a layer of fun to learning about the MobileConnect product”* [KAPP et al. (2014), p.316].

*“The level of competition and engagement created by Merchants has had a very positive impact on employee collaboration”* [KAPP et al. (2014), p.355].

*“The quantitative results and the qualitative survey feedback demonstrate that the application of interactive learning techniques such as online social interaction and game mechanics can help create learner engagement, especially in a new hire on-boarding scenario. Such an approach can not only enhance employer branding, but also help increase employee engagement and learning effectiveness, resulting in reduced cost and higher productivity”* [KAPP et al. (2014), p.368].

Simulations are more realistic tools, according to KAPP et al. (2014), designed to represent real-world processes and environments, where players can practice behaviors and test the consequences of different decisions in a controlled-risk environment. GEE (2008) mentions that simulations are especially used to study complex systems in science. Simulations are also regularly used in aeronautics and medicine, for example, to experience the impacts of pilots’ decisions or physicians’ decisions. There are, however, similarities between games and simulations. Competition, scores, and storytelling are some examples.

Thus, the interactive learning tool we aimed to develop and test in accounting classes was a computer-based accounting simulation, in which students would be challenged to take accounting decisions in a real-life environment. The simulation would be developed considering three important components: the storyline, which must be appealing to engage students; the academic contents, which must be aligned with academic programs to engage professors; and the simulation dynamics, which must be user-friendliness to engage both students and professors.

Furthermore, *“[a]ll the mechanics (e.g. score, levels, leaderboards, bonuses, etc.) should be consistent with and inspired by the set pedagogical targets. [...] Design should combine “the fantasy elements and game play conventions of the real-time strategy genre with numbers, resources and situations based on research about a real-world topic”, such as energy and agriculture. In this way, the player should be able to learn simply by trying to overcome the game’s challenges.”* [BELLOTTI et al. (2013), p.7].

Finally, the experimentation’s logistics and timeline were also an important part of the process.

## **An Interactive Learning Approach to Accounting Classes**

### *The storyline (real-life environment)*

The storyline is presented in Annex 6 and it was developed around the cork industry, after analyzing the annual report for 2013 and several information provided by Amorim Corporation <sup>2</sup>, the major player in the cork industry.

### *The academic contents*

The academic contents, highlighted in Annex 6, were built taking in consideration our analysis of the subjects covered in the accounting courses' syllabus of business administration programs in top business schools. As detailed in Annex 3 the most common accounting courses are Financial Accounting and Managerial Accounting. The main topics covered in each of this courses are related with GAAP analysis, recognition and measurement of assets, liabilities, profit, and losses, accounting treatment of key transactions, financial statement analysis, product costing, cost allocation, cost systems, budgeting and variance analysis, and performance evaluation.

### *The dynamics*

The dynamics, briefly described in Annex 6, would include leaderboards, timer-clock, team competition, interaction with story characters, videos and other multimedia contents. As PERROTA et al. (2013) indicates, the key principles of game-based learning includes intrinsic motivation, fun, goal orientation, autonomy, and learning by doing (experience): to reach such principles game mechanics should include rules, challenging goals, a fictional setting, immediate feedback, progressive difficulty levels, and a social element.

### *The logistics and timeline*

The experimentation was designed to be applied in the Cost Accounting course of the undergraduate degree in Business Administration at Catolica Lisbon School of Business and Economics, for the academic year 2013/2014 (second year, second semester, from February to June). The course is divided in theoretical classes and practical classes: theory lessons are given by an Assistant Professor (faculty) to the entire group of students (207); practical lessons are given by 3 different Teaching Assistants (adjunct faculty) to 6 different classes. The enrollment in each one of the 6 different classes was made by students: each student picked a class according to his/her preference in terms of timetable.

The first idea was to develop a computer-based simulation to apply in one of the practical classes (focus group) and compare the academic results (H1) and levels of satisfaction (H2) between the focus group and the control group, the remaining 5 classes. However, due to the assessment rules already defined for the course, the short timeline available to write this working paper, and the time needed to develop a computer-based simulator, the idea was slightly changed. The focus group was submitted to the same

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<sup>2</sup> Information package received by e-mail on April, 11<sup>th</sup> 2014, from Madalena Santos (Grupo Amorim).

## **An Interactive Learning Approach to Accounting Classes**

problems/exercises<sup>3</sup> than the control group. However and in addition, the focus group was subjected to video watching and analysis (cork industry videos and others: bring real-world problems to classes), timer-clock activities, competition encouragement, and leaderboards. Thus, it might be clearly stated that the focus group was exposed to a more interactive learning approach than the control group.

### Survey

The quantitative survey is one of the most common tools to collect and analyze data. In order to validate this working paper's hypothesis (H3), we developed the following set of questions, which were sent to 722 accounting professors of the Top Business Schools in the United States of America and Europe (list of schools in Annex 3):

Q1: Gender and Age

Q2: Are you currently teaching/lecturing?

Q3: Which courses do/did you teach/lecture?

Q4: Where (country)?

Q5: Do you use computer-based simulations in your accounting classes?

Q6: If the answer to the previous question is No, why not?

Q7: What do/would you consider most valuable in an accounting simulator?

Q8: If you do not use a computer-based simulation in classes, are you willing to try a computer-based simulation tool in your classes, at least once?

The survey was built using Survey Monkey platform. Professors' contacts were downloaded from each school webpage. An e-mail was sent on April 16<sup>th</sup>, 2014 with the message transcribed in Annex 4. A reminder was sent on April 23<sup>rd</sup>, 2014.

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<sup>3</sup> Typical academic exercises from HORNGREN (2012).

# An Interactive Learning Approach to Accounting Classes

## Data treatment and analysis

### Experimentation

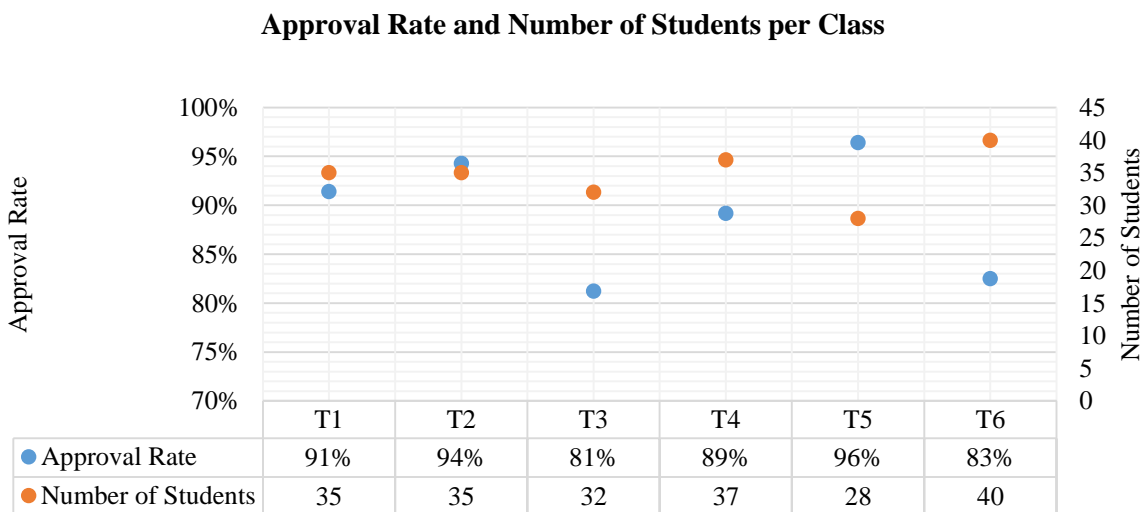
#### Demographics

The experimentation was conducted among undergraduate students of the Cost Accounting course administered in the Business Administration degree at Catolica Lisbon School of Business and Economics. It was defined one focus group (T5), with 28 students, and one control group, with 179 students divided in five different classes (T1, T2, T3, T4, and T6). The allocation of students to each group followed a sort of arbitrary basis: each student picked a class according to his/her preference in terms of timetable. Based on this, we assume the existence of a random distribution among different classes and, consequently, it is not possible to conclude that the best students picked a specific class, namely T5, in detriment of another.

#### Academic results

The results of the experimentation were measured taking in consideration the official final grades reported by the school at the end of the semester. The final grade is the result of the grades obtained in 4 different tests applied during the semester or in a final exam. Both the group of 4 tests and the final exam covered all the contents included in the courses' syllabus <sup>4</sup>.

The academic results were the following:

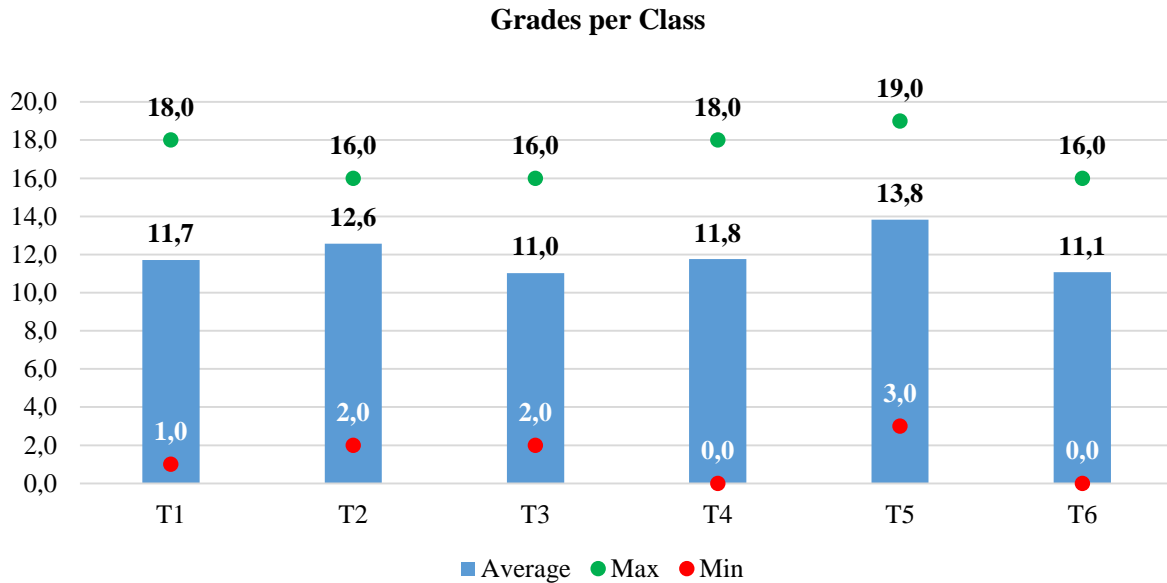


<sup>4</sup> Available at

<http://www.clsbe.lisboa.ucp.pt/resources/Documents/LICENCIATURAS/Syllabus/Cost%20Accounting.pdf>.

Visited in July 6<sup>th</sup> 2014.

## An Interactive Learning Approach to Accounting Classes



Therefore, we can see that T5, the focus group submitted to a more interactive learning approach, had the highest grades, the best average (almost 2 points, out of 20, above the average), and the greatest approval rate (only 1 student has failed).

Furthermore, at the end of each semester, courses are evaluated by students in several aspects including satisfaction levels with course contents, materials, etc. At the time we closed this working paper, however, no results were published, so we are not able to validate, in this experimentation, if a more interactive learning approach to accounting classes result in high levels of students' satisfaction.

Finally, given the small number of students involved and the lack of true experimental parameters, data analysis was limited. No attempt was made to correlate the participation in T5 class interactive activities with course grades due to low statistical power, but grades were compared as displayed above, in order to check that course learning objectives were being met.

### Survey

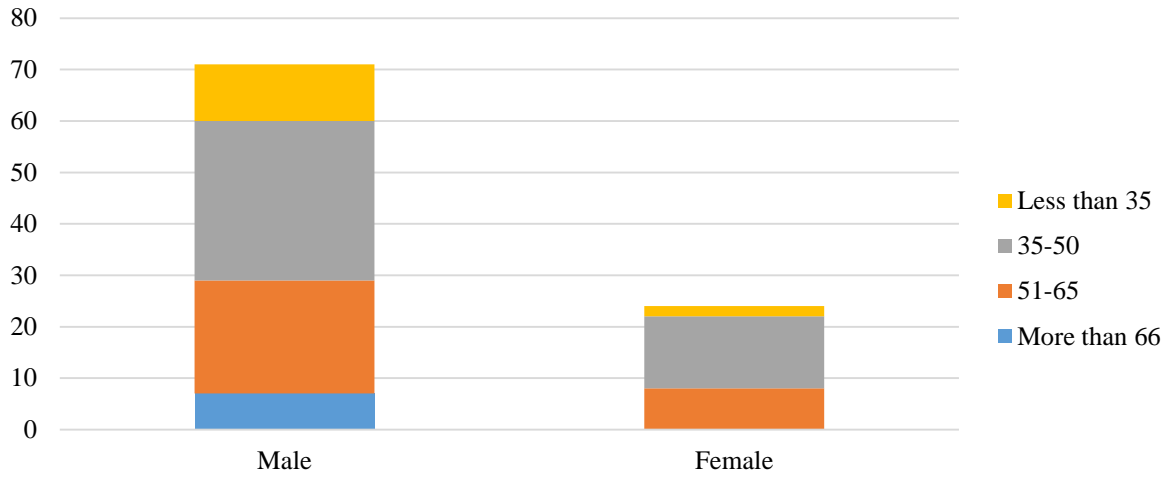
The survey was sent to 722 individuals, during the period from April 16<sup>th</sup> 2014 to April 25<sup>th</sup> 2014. 112 answers were received: 97 through Survey Monkey and 15 by e-mail. This results in a response rate of 15.5%, an acceptable result for this type of data research method. The entire list of answers is included in Annex 5; below we present a graphical summary of answers per question for Survey Monkey respondents.



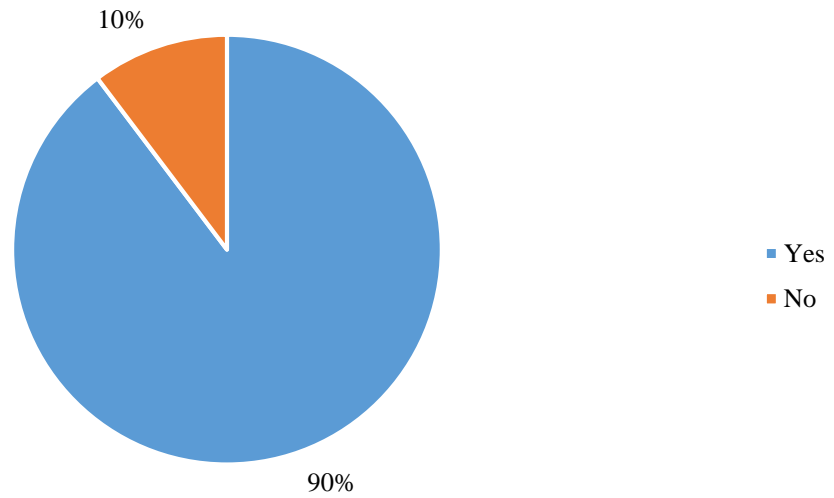
# An Interactive Learning Approach to Accounting Classes

Social demographic is the following:

**Q1: Gender and Age**  
[# Valid Answers: 95]



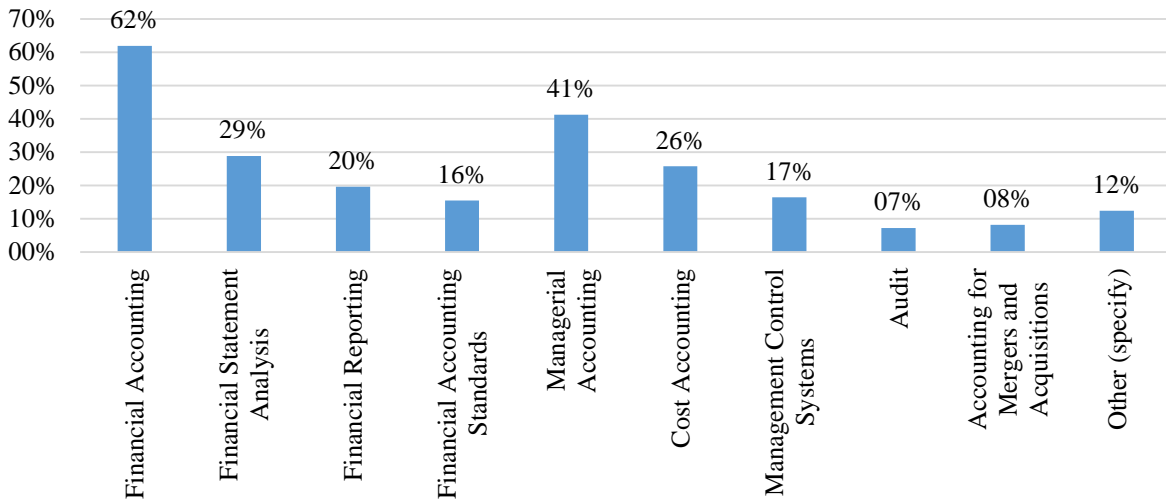
**Q2: Are you currently teaching/lecturing?**  
[# Valid Answers: 97]



## An Interactive Learning Approach to Accounting Classes

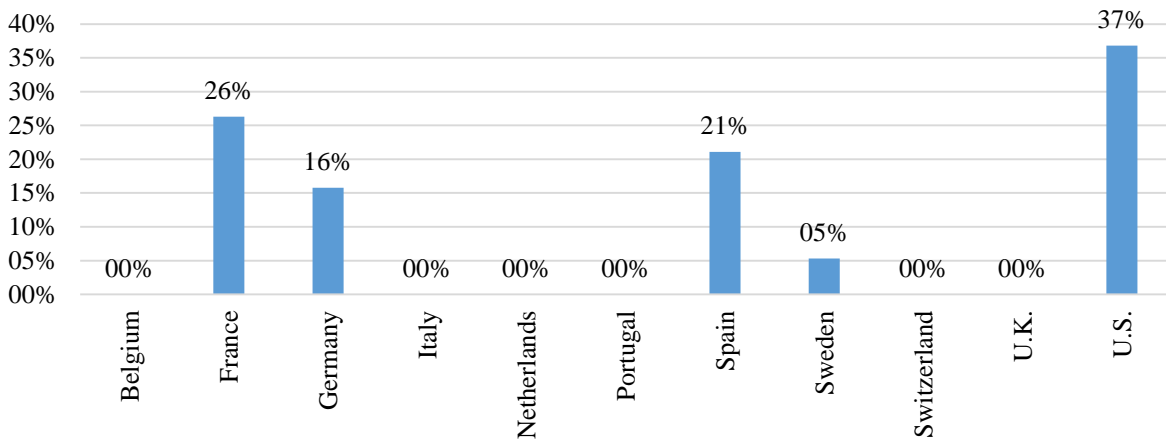
### Q3: Which courses do/did you teach/lecture?

[# Valid Answers: 97]



### Q4: Where (country)?

[# Valid Answers: 19]



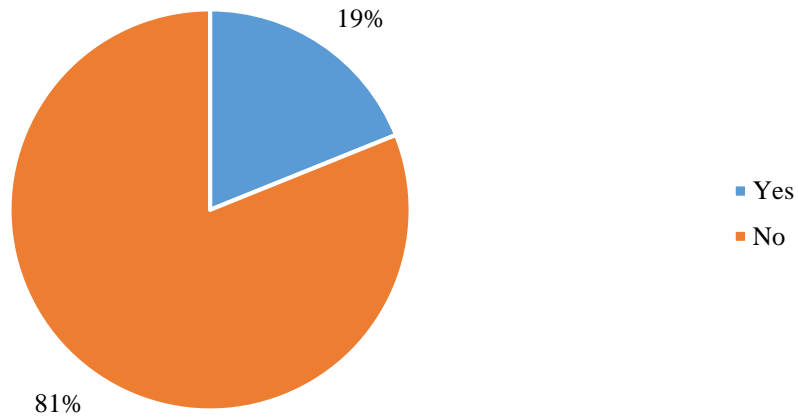
Respondents are mainly men that are currently teaching financial accounting and/or managerial accounting. The question about geographical location was added to the survey at a later stage during the process and the number of answers received after it are reduced, so the results to this question were discarded from the analysis.

## An Interactive Learning Approach to Accounting Classes

On the questions about accounting simulators – its use, reasons for not using, and most valuable features –, professors answered:

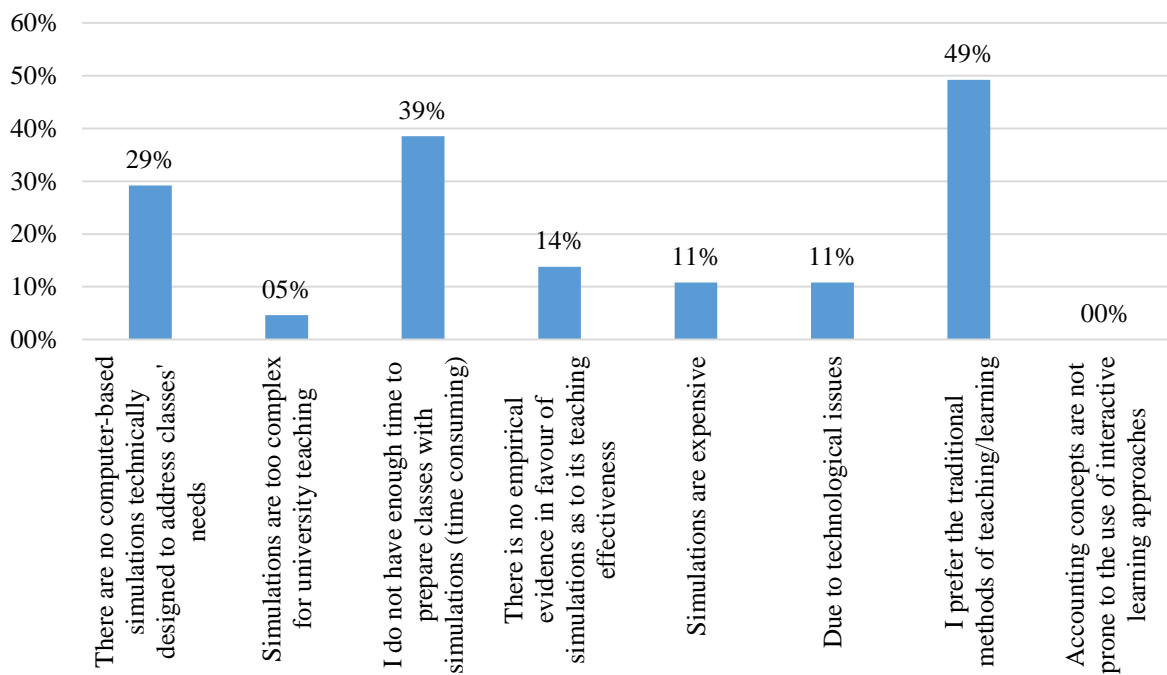
### Q5: Do you use computer-based simulations in accounting classes?

[# Valid Answers: 95]



### Q6: If the answer to the previous question is No, why not?

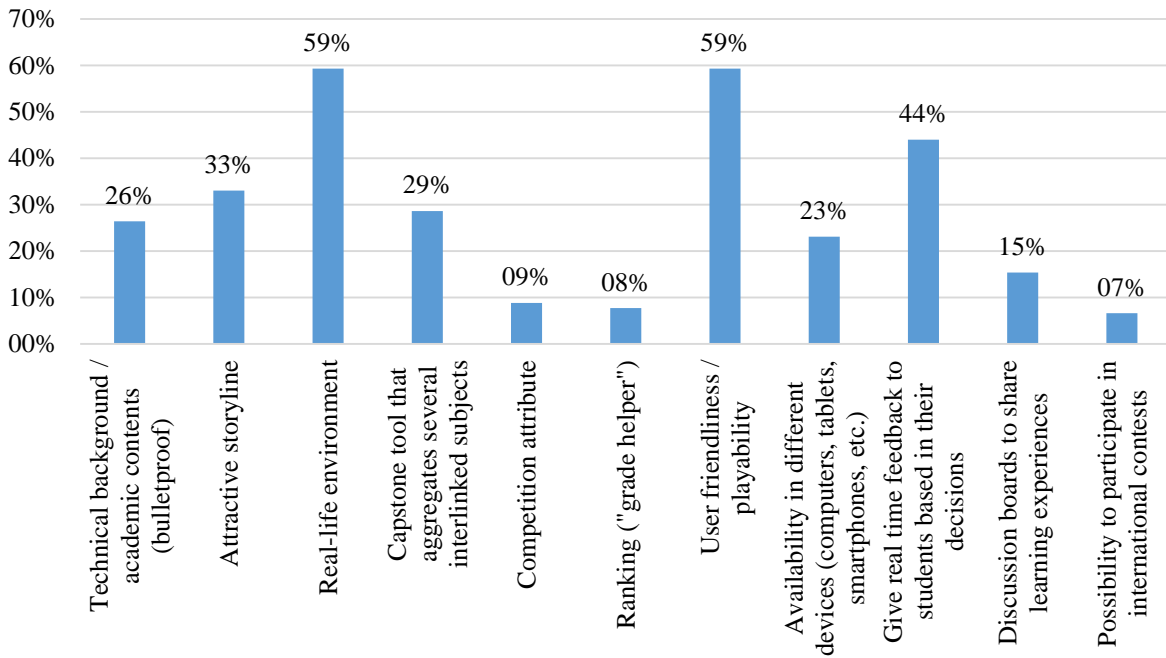
[# Valid Answers: 65]



## An Interactive Learning Approach to Accounting Classes

### Q7: What would you consider most valuable in an accounting simulator?

[# Valid Answers: 91]

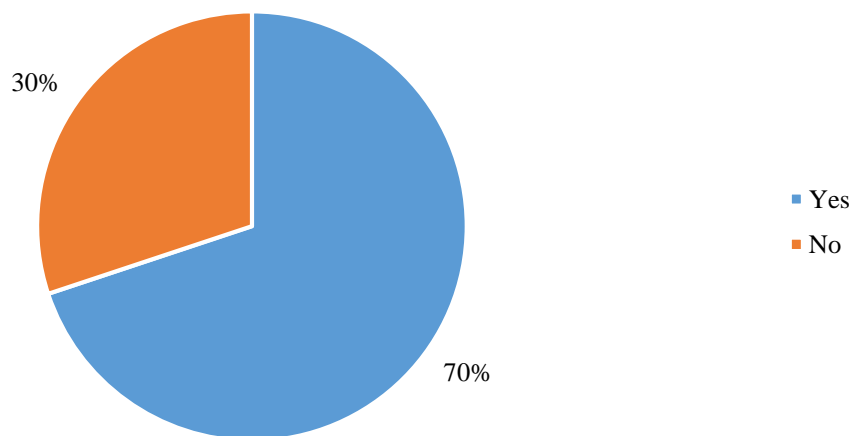


We can see that a large majority of the professors do not use computer-based simulations because they prefer the traditional methods, it is time consuming, and/or they have not found yet an accounting simulator that addresses classes' needs.

Finally, we tried to understand the openness to try a computer-based simulation in classes and the answers are as follows:

### Q8: If you do not use a computer-based simulation in classes, are you willing to try, at least once?

[# Valid Answers: 73]

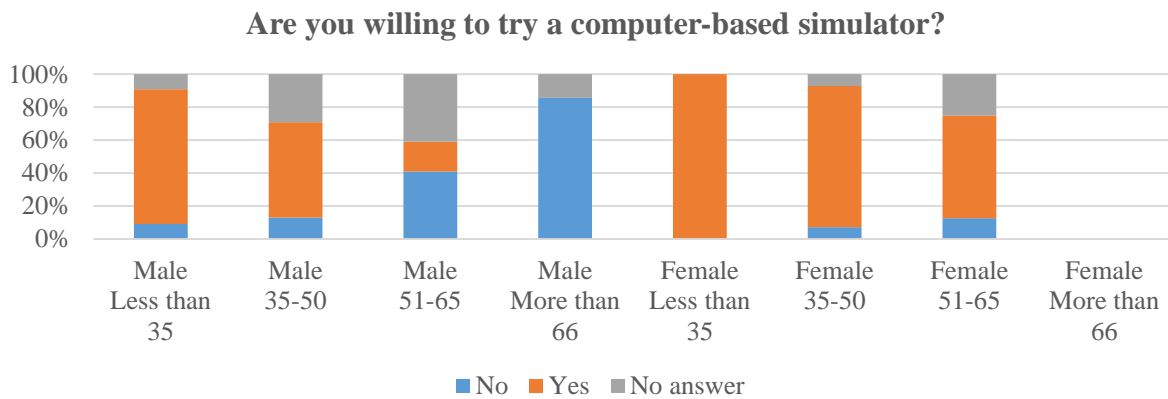
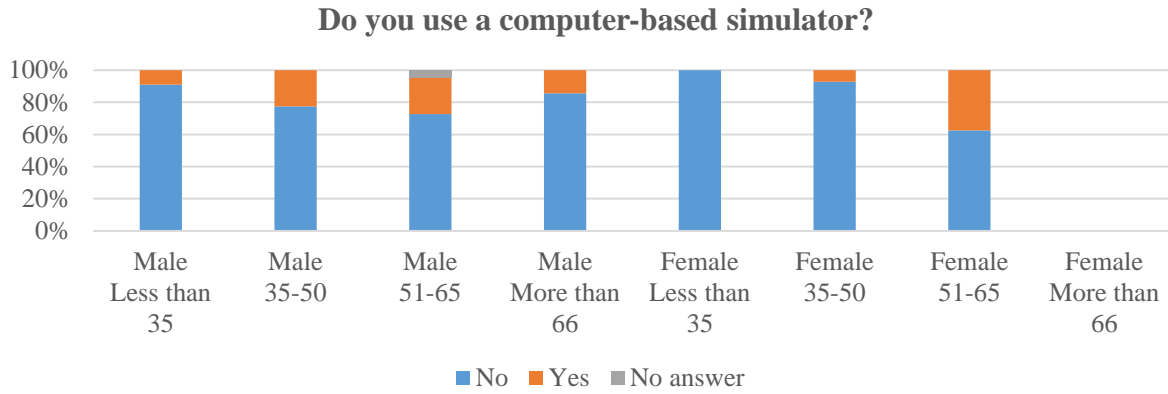


A vast majority of the accounting professors are willing to try a computer-based simulation.

## An Interactive Learning Approach to Accounting Classes

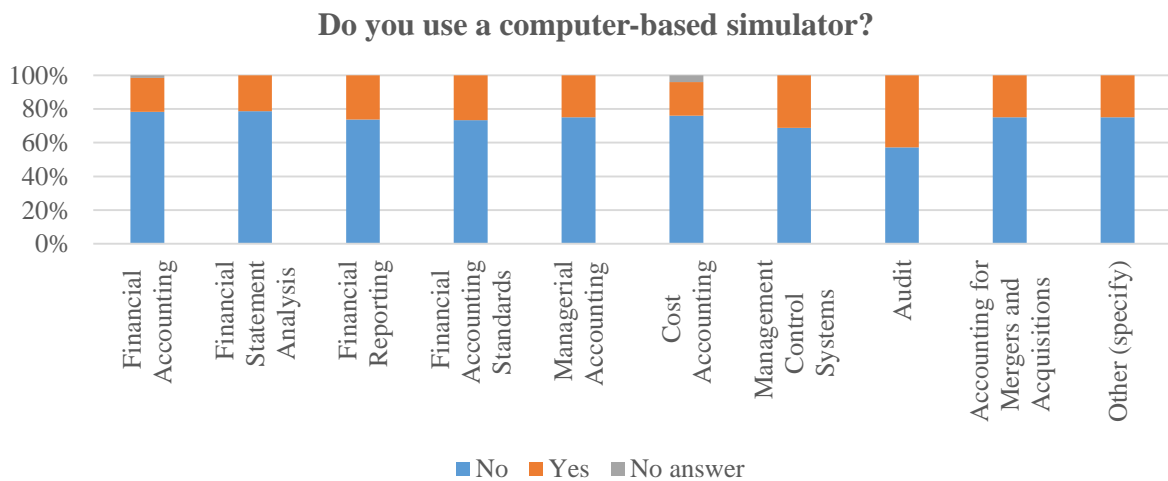
Additionally, we also did an analysis of the answers taking in consideration the age of participants and the subject field of classes. The results are the following

### By age:

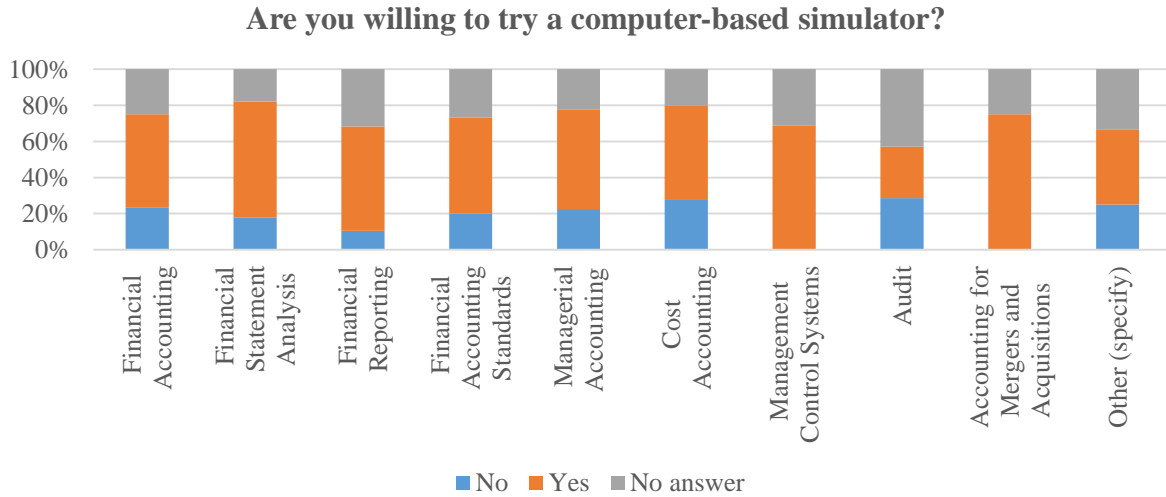


The most relevant conclusion is that women are more prone to try a computer-based simulator and age is a relevant issue: the older the smaller interest in using a simulator.

### By subject



## An Interactive Learning Approach to Accounting Classes



The most relevant conclusion is that Management Control Systems, Accounting for Mergers and Acquisitions, and Financial Reporting professors are more disposed to try a computer-based simulator. Audit is the subject where a large number of professors use computer-based simulations, probably because it is related with the use of accounting/audit software packages.

### Conclusions, implications, and limitations of the research

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*“Learning through play is not a new concept. It is the fundamental way young mammals acquire knowledge of the world around them. In both the fields of education and psychology, much research has shown that human children are no different. Their sense of the world comes into focus during early play. They develop the skills necessary to survive physically, mentally, and emotionally. And because failure in play is rarely catastrophic, they acquire the confidence necessary to try new approaches to the world around them”* SHELDON (2012: 13).

In these times, where students are more than ever visual and active learners, as a result of years watching cable television and playing online and social games, universities in general and professors in particular are challenged to change the way teaching is offered to students. Furthermore, if we consider the most recent trends in the massive open online courses offered by some top business schools, threatens to the classical way of teaching became very relevant.

Thus, it is important to adopt as fast as possible new and more interactive learning approaches to classes. Accounting is a practical discipline, by definition. Recent recommendations, especially from American Accounting Associations, point out to the need to focus in a more real-world based approach, where students are faced to take tough decisions and get immediate feedback. If a competition factor is joined, the learning experience is then perfect.

Accounting simulations, such as other business simulations already developed for different disciplines, might constitute important tools in this strategy. This working paper presented the very favorable literature review in the sense that simulations are good tools to foster learning. Moreover, both results of the survey and the experimentation suggests that there is room to develop a well-structured and bullet-proof computer-based and online accounting simulation, to be adopted by professors and schools. In this direction, EPPER et al. (2012) identifies 6 trends that will conduct to the adoption of game-based learning: the existence of a digital generation; the integration of gameplay dynamics and game competition elements in high fidelity simulations; the data analytics that gives the opportunity to customize students’ learning experiences; the badges as a way to represent achievements and motivate behaviors; the smartphones rapid growth; and the social media effect.

There are, however, several significant factors inhibiting rapid and widespread adoption of game-based learning. The first one is that most games are homegrown products that are not adopted by other institutions. This inhibiting factor is, at the same time, an opportunity field to invest in such a project. Additionally, the harmonization between learning objectives and storytelling is a very challenging task. Also, game development requires multidisciplinary teams, not just content expertise, and the distribution channel for educational games is not established.

## **An Interactive Learning Approach to Accounting Classes**

Finally, it is important to identify several important limitations in this working paper that must be acknowledged. This was an exercise used in a single class section at a single institution in Lisbon, so it cannot be presumed that these results would be replicated under other circumstances. It was also a very limited exercise in terms of logistics, as described above in this paper. Students were not really subjected to an accounting simulation tool.

### **Self-evaluation of what I personally learned in the process**

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Firstly, *“[s]imulations are wonderful tools, but they are not the answer to all learning challenges. Simulations are most effective as application of learning, rather than as primary learning. [...] Simulations are great for taking knowledge that we comprehend in our heads (cognitive) and turning it into actions that we can actually execute (behavioral). Simulations help learners bridge the learn-do gap, turning knowledge into action”* KAPP (2014: 61).

Secondly, building and applying a well-designed and relevant accounting simulation requires time, effort, and multidisciplinary competences. The goal of this working paper was somehow limited when we realized that it would not be possible to develop an accounting simulation during the time available to deliver this paper. However, we believe that the experience conducted and the successful results obtained in the survey are very positive outcomes for future works.

Finally, to be more effective, an accounting simulation must be a kind of capstone seminar given to students at the end of a cycle (e.g. undergraduate degree) to integrate knowledge and summarize learning lessons. A “partial” simulation is also feasible and it works in the specific course contents but it loses the benefits of a broader range of decisions, which is what happens in real-world.



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**ANNEXES**

## An Interactive Learning Approach to Accounting Classes

### Annex 1 – Results from the preliminary survey: business schools' accounting professors

University	Country	Course	Professor	In your Accounting classes, do you have any computer-based simulation to support the learning process? If Yes, which one(s)? If No, why and would you see as interesting to have such a product?	Is there any computer-based simulation specifically dedicated to the accounting discipline, as far as you know? If Yes, which one(s) and how much does it cost? If No, what features or other issues would you value most in this kind of solution?
Coppead	Brazil	Gerência Financeira	Adriano Rodrigues	Não uso software de simulação. Posso analisar um produto deste tipo.	
Iese Business School	Spain	Accounting and Control	Albert Fernández Terricabras	No. I'm not teaching MBA courses in Financial or Cost Accounting. In those courses, this type of solutions make sense.	I don't know
Rotterdam School of Management, Erasmus University	Netherlands		dr. Iuliana Sandu	Because simulations can mimic reality as a case study does, but it can also provide instant feedback. <a href="http://www.GoVentureCEO.com">www.GoVentureCEO.com</a>	It seems to me that there are two main types of simulations for accounting at this point: - simulations that place the student in the manager position where he has to make decisions with respect to number of employees, types of goods to sell etc. and see what the effects of his decisions have on the financial statements - simulations that place the student in the accountant positions where he has to make correct journal entries. What I believe is lacking in both types of simulations is the story. I believe that games and hence simulations enhance the learning because they have a nice story behind it. In the first simulation I described above, the story might be incorporated through unexpected situations the manager might encounter. But I did not see such a simulation until now. In the second type of simulation I describe, the story is partially incorporated through short descriptions of situations (e.g. my client will not pay his debt) and based on these a journal entry has to be made (e.g. recognition of a bad debt). I think that in these two types of simulations the story is not complete. It is as if the environment is very sterile, with little attachment to the characters involved in the story. I am very interested in what type of simulation works best for accounting students. If the results of your report can be made available, I would be very interested in them.
Rotterdam School of Management, Erasmus University	Netherlands	Accounting&Control	dr. Nicola Dalla Via	As of today, I am not using any computer-based simulation in my courses. However, I am evaluating the possibility of introducing it in the short-term. I would like to increase the involvement and the interest of the students by providing insights from practice and hands-on experience with real business software. Moreover, learning can achieve higher cognitive levels instead of focusing only on the transmission of theoretical concepts.	ERPsim developed by HECMontreal. I am looking with interesting at the solution called ERPsim developed by HEC Montreal. The solution contains also simulation games dedicated to the accounting discipline. However, it is offered to Universities that are members of the SAP University Alliances program. I am still gathering information about the costs.
Rotterdam School of Management, Erasmus University	Netherlands	Accounting&Control: Financial Accounting and Financial Statement and Valuation	drs. Dennis Jullens	yes [I don't use but I see as interesting product]	I do see room for these but have no overview of products in this field.
Iese Business School	Spain	Accounting and Control	Eric Weber Woche	HBS simulation called Sentra Simulation it deals with balanced scorecard	I know my colleagues use some computer assisted courses for their basic financial accounting pre-courses
Iese Business School	Spain	Accounting and Control	Fernando Peñalva Acedo	HBS: Financial accounting for all the students as introductory course	\$69
Insead	France / Singapore	Accounting and Control	Gilles Hilary	I meant to design one for a while but never found the time to it	
Insead	France / Singapore	Accounting and Control	S. David Young	No, I don't use a simulation and don't have any plans to do so in my MBA courses.	There probably are accounting based simulations but, because I haven't considered using one. I can't tell you anything about them.
Insead	France / Singapore	Accounting and Control	Steven Monahan	At the present I do not use computer based simulations in my MBA courses	
MIT: Sloan	US	Management Accounting and Control	Jake Cohen	Concerning your questions, I do not have a computer-based simulation in my course. I've never really come across such a product. If a good simulation existed, I would consider trying it out. I am not sure what such a simulation could include. Perhaps a simulation for ratio analysis and valuation would be of value.	
University of Toronto: Rotman	Canada	Accounting	Jeffrey Callen	I am probably the wrong person to ask. I do not use business games/simulators in my courses and I am not interested in using them.	

## An Interactive Learning Approach to Accounting Classes

University	Country	Course	Professor	In your Accounting classes, do you have any computer-based simulation to support the learning process? If Yes, which one(s)? If No, why and would you see as interesting to have such a product?	Is there any computer-based simulation specifically dedicated to the accounting discipline, as far as you know? If Yes, which one(s) and how much does it cost? If No, what features or other issues would you value most in this kind of solution?
IMD	Switzerland	Accounting	Leif Sjoebloom	I don't use any simulations for accounting and I am not aware if any. I would definitely consider it if there was one on the market.	I'm not really sure about the features. I am using the Harvard wine county simulation for valuation classes. You can find it on the Harvard Business School Press web page
Iese Business School	Spain	Accounting and Control: Finacial Accounting	Luis Palencia Herrero	HBS sel-pace simulation (before the courses start - not mandatory)	\$30 per copy
Coppead	Brazil	Gerência Financeira	Marcos G. Avila	Não uso software nas minhas aulas e não tenho acompanhado esse mercado.	
IMD	Switzerland		Nuno Fernandes	yes	Possibility of using it for groups (not individuals), user friendly across platforms, ipad integration
MIT: Sloan	US	Management Accounting and Control	Reining Petacchi	maybe, if the simulators are interesting and stimulate the learning interest.	fun for the students to play, easy to use, stimulate interests in accounting topics covered in the class.
MIT: Sloan	US	Corporate Financial Accounting	S.P. Kothari	Unfortunately, I have not been teaching for the past several years. In the past when I taught, we didn't use an accounting simulator.	
York University: Schulich	Canada	Management Accounting	Sylvia Hsu	NO. Currently I am not interested in using computer-based simulation program	I DO NOT KNOW
Coppead	Brazil	Gerência Financeira	Vicente Ferreira	Especificamente no curso de Contabilidade não utilizo nenhum simulador.	
Catolica Lisbon	Portugal	Finacial Accounting	Cristina Neto de Carvalho	Não tem conhecimento. Remeteu para o Prof. Correa Guedes que desenvolveu o CFO Simulator	
Catolica Lisbon	Portugal	Management Control Systems	Ricardo Reis	Que eu conheça não. Se eu acho interessante? SIM!	
Universidade do Minho	Portugal	Accounting Department Coordinator	Lúcia Lima Rodrigues	Na UMinho não utilizam nenhuma espécie de simulador. Andaram a ver software de contabilidade mas é caro (guardo preços). Explorar interesse por simulador numa próxima conversa	
Universidade de São Paulo & FGV	Brazil	Associate Professor ISCTE / Visiting Professor USP	Isabel Lourenço	Não conheço nenhuma das ferramentas que refere, mas acho que seria interessante poder dispor de algo desta natureza.	
INSPER	Brazil	Accounting Professor (survey monkey)		Não conheço nenhum que se encaixe no programa de contabilidade. Tenho interesse em conhecer novos produtos.	Seria interessante que tivesse um cunho prático voltado a situações de negócio.
INSPER	Brazil	Accounting Professor (survey monkey)		Não pois utilizamos os exercicios do livro base. mas gostaria de conhecer mais sobre as ferramentas para ver se consigo aplicar nas aulas de monitoria.	Existem ERPs como por exemplo SAP e Oracle, mas não conheço nenhum para desenvolvimento específico para contabilidade. Acho que um SW de jogo de empresas ajudaria
INSPER	Brazil	Accounting Professor (survey monkey)		Não, seria muito bom pois facilitaria a assimilação dos efeitos de alguma alteração em orçamento/equação/etc.	Não, acredito que na parte de Custos teria mais aceitação.
INSPER	Brazil	Accounting Professor (survey monkey)		Não, por não conhecer software específico aplicável à disciplina de Contabilidade Financeira. Teria interesse, pois os alunos fariam as conexões entre transações e contabilizações de modo mais intuitivo.	Não como software específico à Contabilidade; tenho conhecimento apenas daqueles relacionem a Contabilidade no todo empresarial, como os que enfocam aspectos de empreendedorismo (jogos de empresas). Penso que ainda não foi desenvolvido nenhuma solução para a disciplina por parecer muito mais técnica do que realmente é. Em relação às características que eu valorizaria, seria a interface intuitiva e ter situações mais próximas à realidade possíveis.

## An Interactive Learning Approach to Accounting Classes

### Annex 2 – Results from the preliminary survey: business schools' students

<b>Q1. Gender and Age</b>					
<b>Answer</b>	<b>Less than 25</b>	<b>26-35</b>	<b>36-45</b>	<b>More than 46</b>	<b>Response Count</b>
Male	3	57	37	7	104
Female	2	26	17	1	46
	5	83	54	8	
<i>answered question</i>					<b>150</b>
<i>skipped question</i>					<b>0</b>

<b>Q2. Do you have a business, finance or accounting background?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Financial background	53.3%	80
Non-financial background	46.7%	70
<i>answered question</i>		<b>150</b>
<i>skipped question</i>		<b>0</b>

<b>Q3. Which program are you attending? (e.g. MIT MBA, HBS Exec Education, INSEAD EMBA, etc.)</b>	
<b>Answer Options</b>	<b>Response Count</b>
	150
<i>answered question</i>	<b>150</b>
<i>skipped question</i>	<b>0</b>

<b>Number</b>	<b>Response Date</b>	<b>Response Text</b>
1	nov 13, 2013 1:19 AM	Sloan Fellow
2	nov 12, 2013 2:36 PM	EMBA
3	nov 12, 2013 2:10 AM	MIT MBA
4	nov 11, 2013 11:55 PM	MIT EMBA
5	nov 11, 2013 10:02 PM	MIT MBA (Sloan Fellows Program)
6	nov 11, 2013 9:48 PM	Sloan Fellow
7	nov 11, 2013 8:16 PM	EMBA
8	nov 11, 2013 8:00 PM	MIT Sloan fellows MBA
9	nov 11, 2013 7:44 PM	Mit mba
10	nov 11, 2013 7:20 PM	Sloan Fellows
11	nov 11, 2013 7:10 PM	MIT MBA
12	nov 11, 2013 7:01 PM	MIT MBA
13	nov 11, 2013 6:54 PM	SF14
14	nov 11, 2013 6:49 PM	MIT MBA
15	nov 11, 2013 6:44 PM	MIT Sloan Fellowship
16	nov 11, 2013 6:40 PM	MFIN
17	nov 11, 2013 6:28 PM	MIT MBA
18	nov 11, 2013 6:27 PM	MIT SF
19	nov 11, 2013 6:26 PM	MIT MBA - Sloan Fellows Program
20	nov 11, 2013 3:48 PM	The Lisbon MBA - Par time
21	nov 10, 2013 12:20 PM	The Lisbon MBA
22	nov 7, 2013 11:58 PM	MITSF14
23	nov 7, 2013 6:02 PM	And MBA in Brazil but will attend another MBA in the US next year at Hult and Berkeley.
24	nov 7, 2013 5:02 PM	lisbon MBA
25	nov 7, 2013 3:39 PM	MIT SF
26	nov 7, 2013 3:31 PM	MIT SF
27	nov 7, 2013 12:55 PM	TL MBA
28	nov 7, 2013 12:34 PM	MIT MBA
29	nov 7, 2013 11:52 AM	master
30	nov 7, 2013 2:56 AM	MIT MBA (Sloan Fellows)
31	nov 6, 2013 9:44 PM	MIT Sloan Fellows
32	nov 6, 2013 9:36 PM	MIT MBA
33	nov 6, 2013 8:28 PM	MIT Sloan Fellows
34	nov 6, 2013 7:17 PM	MIT Sloan fellow



## An Interactive Learning Approach to Accounting Classes

Number	Response Date	Response Text
35	nov 6, 2013 7:11 PM	MIT MBA
36	nov 6, 2013 6:23 PM	MIT MBA
37	nov 6, 2013 6:20 PM	MIT MBA
38	nov 6, 2013 5:28 PM	TLisbonMBA
39	nov 6, 2013 5:25 PM	MBA
40	nov 6, 2013 4:51 PM	MIT MBA Sloan Fellows
41	nov 6, 2013 4:46 PM	mfin
42	nov 6, 2013 3:57 PM	MIT Sloan
43	nov 6, 2013 3:53 PM	MIT Sloan
44	nov 6, 2013 3:52 PM	MIT MBA
45	nov 6, 2013 3:41 PM	MIT EMBA
46	nov 6, 2013 3:38 PM	MIT MBA
47	nov 6, 2013 3:29 PM	MIT MBA
48	nov 6, 2013 3:29 PM	MIT SF
49	nov 6, 2013 3:27 PM	mit mba
50	nov 6, 2013 3:26 PM	MIT SF
51	nov 6, 2013 3:11 PM	MBA
52	nov 6, 2013 3:09 PM	Mit Mot
53	nov 6, 2013 2:49 PM	MIT MBA
54	nov 6, 2013 2:44 PM	MBA
55	nov 6, 2013 2:41 PM	MIT MBA
56	nov 6, 2013 2:39 PM	MIT Accounting PhD
57	nov 6, 2013 2:30 PM	MIT MBA (SF)
58	nov 6, 2013 2:26 PM	MIT MSMS
59	nov 6, 2013 2:25 PM	MIT LGO
60	nov 6, 2013 2:25 PM	MIT MBA
61	nov 6, 2013 2:24 PM	Sloan Fellows
62	nov 6, 2013 12:54 PM	Lisbon MBA
63	nov 6, 2013 11:29 AM	TLMBA
64	nov 6, 2013 10:26 AM	ISEAD, Madrid, España
65	nov 5, 2013 9:55 PM	Lisbon MBA
66	nov 5, 2013 9:52 PM	FUDAN MBA
67	nov 5, 2013 7:09 PM	Lisbon MBA
68	nov 5, 2013 6:47 PM	MBA 1996-1998
69	nov 5, 2013 5:45 PM	Lisbon MBA
70	nov 5, 2013 4:45 PM	Lisbon MBA
71	nov 5, 2013 4:30 PM	Lisbon MBA
72	nov 5, 2013 3:53 PM	Lisbon MBA
73	nov 5, 2013 2:17 PM	Lisbon MBA
74	nov 5, 2013 11:35 AM	The Lisbon MBA Part-time
75	nov 5, 2013 10:19 AM	LisbonMBA
76	nov 5, 2013 7:18 AM	Lisbon MBA
77	nov 5, 2013 6:07 AM	MIT Sloan
78	nov 5, 2013 3:40 AM	Lisbon MBA
79	nov 4, 2013 11:51 PM	Inspere
80	nov 4, 2013 11:45 PM	Lisbon Mba
81	nov 4, 2013 11:39 PM	Inspere MBA
82	nov 4, 2013 11:23 PM	Lisbon MBA Part-Time
83	nov 4, 2013 11:12 PM	LisbonMBA part time
84	nov 4, 2013 10:58 PM	Catolica AMP
85	nov 4, 2013 10:12 PM	LMBA
86	nov 4, 2013 9:29 PM	Lisbon mba
87	nov 4, 2013 9:07 PM	Lisbon MBA
88	nov 4, 2013 9:05 PM	Lisbon MBA
89	nov 4, 2013 8:11 PM	TLMBA
90	nov 4, 2013 7:32 PM	Lisbon MBA
91	nov 4, 2013 7:29 PM	Lisbon MBA
92	nov 4, 2013 6:42 PM	Lisbon MBA Part-Time
93	nov 4, 2013 6:20 PM	Lisbon MBA
94	nov 4, 2013 6:18 PM	Lisbon MBA
95	nov 4, 2013 6:12 PM	lisbon mba
96	nov 4, 2013 5:58 PM	Lisbon MBA
97	nov 4, 2013 5:27 PM	LisbonMBA
98	nov 4, 2013 5:16 PM	Inspere MBA
99	nov 4, 2013 5:07 PM	Lisbon MBA

## An Interactive Learning Approach to Accounting Classes

Number	Response Date	Response Text
100	nov 4, 2013 5:00 PM	Lisbon MBA
101	nov 4, 2013 4:59 PM	Lisbon mba
102	nov 4, 2013 4:56 PM	Lisbon MBA
103	nov 4, 2013 4:47 PM	I've attended TheLisbonMBA.
104	nov 4, 2013 4:46 PM	Lisbon MBA
105	nov 4, 2013 4:43 PM	LisbonMBA
106	nov 4, 2013 4:42 PM	Lisbon MBA Part Time
107	nov 4, 2013 4:41 PM	Lisbon MBA
108	nov 4, 2013 4:40 PM	Lisbon MBA part time
109	nov 4, 2013 4:36 PM	Lisbon MBA
110	nov 4, 2013 4:35 PM	Lisbon MBA
111	nov 4, 2013 4:31 PM	Lisbon MBA
112	nov 4, 2013 4:31 PM	LisbonMBA
113	nov 4, 2013 4:30 PM	Lisbon MBA
114	nov 4, 2013 4:30 PM	LisbonMBA
115	nov 4, 2013 4:29 PM	Lisbon MBA
116	nov 4, 2013 4:29 PM	Lisbon MBA
117	nov 4, 2013 4:28 PM	Lisbon MBA
118	nov 4, 2013 4:28 PM	Lisbon MBA
119	nov 4, 2013 4:25 PM	Lisbon MBA
120	nov 4, 2013 4:24 PM	Lisbon MBA
121	nov 4, 2013 4:20 PM	Lisbon MBA
122	nov 4, 2013 4:20 PM	Lisbon MBA
123	nov 4, 2013 4:19 PM	TheLisbonMBA
124	nov 4, 2013 4:15 PM	Lisbon MBA
125	nov 4, 2013 4:13 PM	lisbon mba
126	nov 4, 2013 4:12 PM	Lisbon MBA
127	nov 4, 2013 4:12 PM	Lisbon MBA
128	nov 4, 2013 4:11 PM	Lisbon MBA
129	nov 4, 2013 4:10 PM	Lisbon MBA
130	nov 4, 2013 4:08 PM	Lisbon MBA
131	nov 4, 2013 4:08 PM	The Lisbon MBA Part-Time
132	nov 4, 2013 4:06 PM	Lisbon MBA Part-Time
133	nov 4, 2013 4:05 PM	Lisbon MBA
134	nov 4, 2013 4:05 PM	Lisbon MBA
135	nov 4, 2013 4:03 PM	Lisbon MBA - part time
136	nov 4, 2013 4:03 PM	Lisbon MBA - part time
137	nov 4, 2013 4:03 PM	Lisbon MBA - Part Time
138	nov 4, 2013 4:02 PM	LisbonMBA part time
139	nov 4, 2013 4:02 PM	Lisbon MBA
140	nov 4, 2013 4:02 PM	Lisbon MBA
141	nov 4, 2013 4:02 PM	Lisbon MBA part time 2013-2015
142	nov 4, 2013 4:01 PM	Lisbon MBA
143	nov 4, 2013 4:01 PM	Lisbon MBA
144	nov 4, 2013 4:01 PM	MBA
145	nov 4, 2013 4:00 PM	LisbonMBA
146	nov 4, 2013 4:00 PM	I attended TheLisbonMBA and the undergraduate Economics course in Nova Business School.
147	nov 4, 2013 4:00 PM	Lisbon MBA Part-Time
148	nov 4, 2013 3:59 PM	Lisbon mba
149	nov 4, 2013 3:59 PM	TLMBA
150	nov 4, 2013 3:59 PM	Lisbon MBA

## An Interactive Learning Approach to Accounting Classes

<b>Q4. Which accounting courses do you have in your program?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Financial Accounting	92.0%	138
Managerial Accounting	52.0%	78
Mergers and Acquisitions	28.7%	43
Financial Statement Analysis	38.7%	58
None	1.3%	2
Other	6.7%	10
<i>answered question</i>		<b>150</b>
<i>skipped question</i>		<b>0</b>

<b>Number</b>	<b>Response Date</b>	<b>Other (specify)</b>	<b>Categories</b>
1	nov 11, 2013 10:02 PM	Investment etc	
2	nov 6, 2013 7:11 PM	Multiple	
3	nov 6, 2013 3:41 PM	Finance, Deals and the Law	
4	nov 6, 2013 2:39 PM	None of the above in my MIT program, but I took all of these courses except M&A in 2012 at Brigham Young University.	
5	nov 6, 2013 10:26 AM	Gestão de territórios	
6	nov 5, 2013 5:45 PM	Management Control Systems (Cost Accounting)	
7	nov 4, 2013 6:20 PM	Management Control Systems	
8	nov 4, 2013 4:43 PM	Financial Investments	
9	nov 4, 2013 4:31 PM	Corporate Finance; Private	
10	nov 4, 2013 4:24 PM	Private Equity	

<b>Q5. In your program, which of the following courses use simulators as a learning tool?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Operations	56%	80
Economics	24%	34
Finance	23%	33
Statistics	21%	30
None	19%	28
Marketing	19%	27
Others	13%	18
Organizational	10%	15
Strategy	10%	14
Accounting	6%	8
Please specify in the following box the name of the simulators you remember, if applicable.		40
<i>answered question</i>		<b>144</b>
<i>skipped question</i>		<b>6</b>

<b>Number</b>	<b>Response Date</b>	<b>Simulators' name</b>	<b>Categories</b>
1	nov 11, 2013 11:57 PM	Vensim and 3 or 4 others I don't remember I am not sure if I understand the meaning correctly. We do not use	
2	nov 11, 2013 10:04 PM	computer-based game but use computer-based learning program to practice the concept in some basic finance courses.	
3	nov 11, 2013 9:48 PM	System dynamics	
4	nov 11, 2013 7:21 PM	Vensin and Change Pro user	
5	nov 11, 2013 6:27 PM	Vensim, @Risk	
6	nov 7, 2013 6:03 PM	Bloomberg	
7	nov 7, 2013 2:58 AM	@Risk, Bensim	
8	nov 6, 2013 9:46 PM	System Dynamics	
9	nov 6, 2013 8:28 PM	System Dynamics	
10	nov 6, 2013 7:11 PM	System Dynamics	
11	nov 6, 2013 3:58 PM	DMD & System Dynamics	
12	nov 6, 2013 2:27 PM	ChangePro (OB), econ simulation about selling salt, finance simulation about trading stocks, Littlefield (Ops), Beer Game (Ops)	
13	nov 6, 2013 2:25 PM	System Dynamics	
14	nov 6, 2013 12:55 PM	Littlefield, HBS accounting course, Change Pro	
15	nov 6, 2013 11:29 AM	Littlefield	

## An Interactive Learning Approach to Accounting Classes

Number	Response Date	Simulators' name	Categories
16	nov5, 2013 5:45 PM	Littlefield Technologies / Vecon Lab	
17	nov5, 2013 4:45 PM	Littlefield	
18	nov5, 2013 7:19 AM	Corporate Finance and Private Equity (M&A)	
19	nov5, 2013 3:40 AM	little field for operations	
20	nov4, 2013 11:47 PM	Littlefield	
21	nov4, 2013 11:12 PM	Private Equity	
22	nov4, 2013 9:30 PM	Private Equity	
23	nov4, 2013 7:33 PM	Littlefield	
24	nov4, 2013 6:43 PM	Don't know... until now none have used	
25	nov4, 2013 6:18 PM	Littlefield	
26	nov4, 2013 5:20 PM	Marketplace Live	
27	nov4, 2013 4:48 PM	Littlefield	
28	nov4, 2013 4:41 PM	ainda estou no inicio do MBA e desconheço os métodos das disciplinas que ainda não frequentei.	
29	nov4, 2013 4:31 PM	- ; Littlefield	
30	nov4, 2013 4:31 PM	Littlefield, the one from John Van Maanen, the car rental one for marketing	
31	nov4, 2013 4:28 PM	Operations	
32	nov4, 2013 4:24 PM	Private Equity	
33	nov4, 2013 4:22 PM	littlefield technologies	
34	nov4, 2013 4:13 PM	Littlefield, Car rental software game (don't remember the name), MIT platform	
35	nov4, 2013 4:09 PM	Littlefield, the others I don't remember...	
36	nov4, 2013 4:04 PM	Operations - Littlefield, Economics - I don't remember	
37	nov4, 2013 4:01 PM	Littlefield for Operations and I dont recall the name of the Finance simulator. It was home made.	
38	nov4, 2013 4:01 PM	Private Equity (Blackstone Celanese)	
39	nov4, 2013 4:00 PM	Littlefield	
40	nov4, 2013 3:59 PM	Littlefield, Harvard	

Q6. Do you agree or disagree with the following statements?				
Answer Options	Agree	Neither agree nor disagree	Disagree	Response Count
Teaching with computer simulations is a common practice in my program	26	50	54	130
I remember better the cases and concepts that were taught using computer	67	54	9	130
Simulators make classes more enjoyable	89	35	6	130
Simulators increase my awareness of practical applications of technical	91	35	4	130
I find difficult using technological devices and I usually need some technical assistance in using on-line tools	8	25	97	130
Getting access to internet is a problem for me	2	6	122	130
It would be good if there was much more simulators in my courses	64	59	7	130
<i>answered question</i>				<b>130</b>
<i>skipped question</i>				<b>20</b>

Q7. How important are the following features in a simulator?						
Answer Options	5	4	3	2	1	Response Count
Competition with other teams	30	55	29	6	5	125
Interaction with peers and instructors	52	53	18	2	0	125
User friendliness	78	34	12	1	0	125
Availability in different devices (computers, tablets, smartphones, etc.)	43	33	24	19	6	125
Be part of the grade (graded assessment)	7	43	50	12	13	125
Get real time feedback	47	54	22	2	0	125
Possibility to participate in international contests	16	26	38	21	24	125
Discussion boards	13	39	43	16	14	125
File sharing: repository to download slides and other information	21	44	34	20	6	125
Pre-recorded video	9	39	39	29	9	125
Interactive video: the professor can see/hear you and you can see/hear him/her	11	37	38	28	11	125
Other (please specify)						2
<i>answered question</i>						<b>125</b>
<i>skipped question</i>						<b>25</b>

Number	Other (please specify)
1	Since I have no experience, it is not relevant to answer questions above.
2	Adherence to class concepts

## An Interactive Learning Approach to Accounting Classes

**Q8. Question APPLICABLE ONLY to the students that PAY for the cases, exercises, e-learning tools, and simulators. If the professor recommends, I am willing to pay more for a computer-based simulator than for a paper-based case (which costs approximately \$7), because I understand that it will be an easy way to learn and, consequently, to have better grades. Thus, I am willing to pay a premium in the amount of:**

Answer Options	Response Percent	Response Count
Less than \$10	41%	32
Between \$10 and \$20	30%	23
Between \$20 and \$30	6%	5
Between \$30 and \$50	0%	0
More than \$50	5%	4
Nothing	18%	14
<i>answered question</i>		<b>78</b>
<i>skipped question</i>		<b>72</b>

Number	Response Date	I am not willing to pay more for a simulator than what I pay for a paper-based case (please let us know why).	Categories
1	nov 12, 2013 2:39 PM	we don't individually pay for anything so I can't intelligently assess what I would pay for one thing over another b/c I have no cost comparison	
2	nov 11, 2013 8:03 PM	If I have paid already	
3	nov 6, 2013 7:20 PM	the school should pay, I paid tuition	
4	nov 6, 2013 3:29 PM	I believe that tool should be included in the tuition cost	
5	nov 6, 2013 2:28 PM	Should be included as part of the course fees	
6	nov 5, 2013 9:57 PM	I dont pay	
7	nov 5, 2013 3:58 PM	in my opinion, the LisbonMBA cost is high enough to incorporate more simulations	
8	nov 4, 2013 8:14 PM	I am not a huge fan of simulators - sorry!	
9	nov 4, 2013 5:30 PM	this should be included on my tuition fee	
10	nov 4, 2013 4:50 PM	Because I'm not sure it will allow me to have a better grade compared to the traditional format	
11	nov 4, 2013 4:22 PM	Tuition is high enough as it is! Also, we already pay for all coursebooks, etc.	
12	nov 4, 2013 4:13 PM	I believe that the paper-based cases and simulators should be part of the tuition fees	
13	nov 4, 2013 4:11 PM	Because it is electronic and can be much more scalable than the paper version. Has a higher cost, but can bring much more revenues.	
14	nov 4, 2013 4:03 PM	Greed.	

### Q9. Do you recommend the use of a simulator in the Accounting courses?

Answer Options	Response Percent	Response Count
Yes	84%	101
No	16%	19
<i>answered question</i>		<b>120</b>
<i>skipped question</i>		<b>30</b>

## An Interactive Learning Approach to Accounting Classes

Q10. Why?	Response Count
Answer Options	120
<i>answered question</i>	<b>120</b>
<i>skipped question</i>	<b>30</b>

Number	Response Date	Response Text
1	nov 12, 2013 2:40 PM	I basically learned nothing in class during accounting. I taught myself out of the book. It's so hard to follow on a blackboard and you don't learn it til you do it. A simulator would likely have completely changed my ability to learn for the better.
2	nov 12, 2013 2:16 AM	I do not think it is needed,
3	nov 12, 2013 12:00 AM	It could provide a more vivid example of a real world accounting problem.
4	nov 11, 2013 10:11 PM	I do not see differences as I have no experience
5	nov 11, 2013 8:18 PM	More memorable experiences and teachings
6	nov 11, 2013 8:04 PM	Practical use
7	nov 11, 2013 7:23 PM	It could facilitate people who has no accounting knowledge to easier see the flow of financial/accounting information and hence reduce the learning curve.
8	nov 11, 2013 7:12 PM	If it will help make the education more robust and clear, then it is something I think that should be used.
9	nov 11, 2013 6:56 PM	Helps speed and reinforce the theoretical concepts
10	nov 11, 2013 6:52 PM	Would make the course material more realistic
11	nov 11, 2013 6:42 PM	Its is better and fun than only reading the theory
12	nov 11, 2013 6:39 PM	Accounting has clear system and I suppose simulator should fit to the class.
13	nov 11, 2013 6:33 PM	Ledger entry is complex and new comers do not realize the implication in real time on BS/PnL
14	nov 11, 2013 6:28 PM	It is a useful and rapid way to learn the skills.
15	nov 11, 2013 3:50 PM	I believe them to be useful
16	nov 8, 2013 12:01 AM	The interaction and stimulus from simulators improve the learning curve
17	nov 7, 2013 6:10 PM	The most practice in simulators the better and faster are the learning process, besides you get the interaction with others in real time.
18	nov 7, 2013 5:04 PM	because i think direct teaching is better
19	nov 7, 2013 3:42 PM	For financial analysis n forecast
20	nov 7, 2013 12:58 PM	Seems a useful learning tool.
21	nov 7, 2013 11:57 AM	Improves the performance
22	nov 7, 2013 3:01 AM	should be more practical
23	nov 6, 2013 9:50 PM	perhaps useful - the impact of business decisions can be reflected on accounting statements - with results shown quickly
24	nov 6, 2013 9:40 PM	y
25	nov 6, 2013 8:31 PM	Could be easier to explain for teachers and way better for students to learn
26	nov 6, 2013 7:20 PM	could demonstrate the impacts
27	nov 6, 2013 7:13 PM	See above
28	nov 6, 2013 6:24 PM	Don't see the need
29	nov 6, 2013 6:23 PM	Accounting is a very hard subject to learn with paper only. It should be interactive
30	nov 6, 2013 5:31 PM	none
31	nov 6, 2013 5:27 PM	Help understand concepts
32	nov 6, 2013 4:53 PM	Don't see the value
33	nov 6, 2013 4:49 PM	practical
34	nov 6, 2013 4:28 PM	I think that there are better ways to apply accounting knowledge than through simulators
35	nov 6, 2013 4:01 PM	You can learn accounting better than simulator
36	nov 6, 2013 4:00 PM	easy to understand causations
37	nov 6, 2013 3:53 PM	I have no experience in to how these would be used.
38	nov 6, 2013 3:39 PM	not sure what the value would be like to input values in response to changes in a business (how it would be different from just reading a paragraph about changes in the business)
39	nov 6, 2013 3:32 PM	You get interactive results
40	nov 6, 2013 3:30 PM	It will allow to understand better the impact of accruals , provisions, losses and different accounting strategies.
41	nov 6, 2013 3:30 PM	Maybe it will be useful to understand the relation between the theory and the practice and perhaps give to the students best learning about the importance of the topics.
42	nov 6, 2013 3:13 PM	Because it will help to get practical experience.
43	nov 6, 2013 3:11 PM	Accounting is basically mechanic and boring
44	nov 6, 2013 2:51 PM	Just because.
45	nov 6, 2013 2:45 PM	It makes it easier
46	nov 6, 2013 2:44 PM	I don't understand how it would be used.
47	nov 6, 2013 2:42 PM	Would help get practical experience.
48	nov 6, 2013 2:34 PM	interact active learning
49	nov 6, 2013 2:29 PM	Could be useful, though it's difficult to think of a potential simulation for accounting
50	nov 6, 2013 2:29 PM	Because in Accounting, it is probably most important that you have WORKING knowledge (as opposed to book knowledge) of the principles / concepts.
51	nov 6, 2013 2:28 PM	Makes it easier to understand
52	nov 6, 2013 2:28 PM	If it is a good established tool, it will help to comprehend material and learning easier
53	nov 6, 2013 12:57 PM	Faster assimilation of conceptual fundamentals and nuances of the subject
54	nov 6, 2013 10:32 AM	muito educativo e perto da realidade
55	nov 5, 2013 9:57 PM	good to interiorize the theory
56	nov 5, 2013 7:12 PM	practical example
57	nov 5, 2013 5:47 PM	Interactive and practical learning
58	nov 5, 2013 4:48 PM	_
59	nov 5, 2013 4:00 PM	It has the potential to give student a better understanding of the consequences of accounting / finance decisions or conditions through time
60	nov 5, 2013 2:26 PM	Practical, User-Friendly, Good Learning Experience
61	nov 5, 2013 11:39 AM	It might help understand the real world and the purpose of accounting in a company
62	nov 5, 2013 10:22 AM	Accounting is about doing. You learn when you do.
63	nov 5, 2013 7:21 AM	Too static
64	nov 5, 2013 6:09 AM	.
65	nov 5, 2013 3:43 AM	concepts are easy to memorize and understand
66	nov 4, 2013 11:54 PM	makes learning more interactive and enjoyable
67	nov 4, 2013 11:53 PM	I do not know of any simulator available for accounting courses and I have doubts as to whether I would gain anything from using a simulator in such a course. My experience from other courses was that simulators are of little value to the acquisition of knowledge in that course.
68	nov 4, 2013 11:41 PM	.
69	nov 4, 2013 11:25 PM	It could be interesting to have it.

## An Interactive Learning Approach to Accounting Classes

Number	Response Date	Response Text
70	nov 4, 2013 11:17 PM	Because it can help to comprehend where to allocate costs, in which T accounts, how to prepare an income statement, accruals and deferrals - how to do it?
71	nov 4, 2013 10:15 PM	As a learning facilitator
72	nov 4, 2013 9:33 PM	It may be more practical to understand the concepts
73	nov 4, 2013 9:10 PM	Because it makes easier to understand the accounting key concepts and reasoning
74	nov 4, 2013 9:08 PM	As a practical tool to understand different scenarios.
75	nov 4, 2013 8:15 PM	I am curious to see how it could work. A real life scenario - involving what? It would certainly be memorable.
76	nov 4, 2013 7:38 PM	Systematization purposes
77	nov 4, 2013 6:45 PM	para que as aulas sejam menos "maçadoras"
78	nov 4, 2013 6:25 PM	Improves practical competences acquisition
79	nov 4, 2013 6:20 PM	It does not seem a simulator friendly subject
80	nov 4, 2013 6:14 PM	real time feedback
81	nov 4, 2013 5:39 PM	Never felt the need because I have never use it
82	nov 4, 2013 5:30 PM	it would enable me to have a clearer understanding of the theory
83	nov 4, 2013 5:26 PM	The competition of a simulator fosters the student to dig deeper into Financial Accounting analysis.
84	nov 4, 2013 5:09 PM	Allows practical exercise
85	nov 4, 2013 5:02 PM	because
86	nov 4, 2013 5:01 PM	real world
87	nov 4, 2013 4:51 PM	Because as in any other courses it allows me to put in practice the theoretical knowledge, and better "pack" the content in my mind.
88	nov 4, 2013 4:50 PM	To test in a faster way a broader and diverse set of possibilities.
89	nov 4, 2013 4:49 PM	Better learning process More dynamic
90	nov 4, 2013 4:48 PM	It would give another perspective of how accounting would be perceived
91	nov 4, 2013 4:45 PM	IT is cool
92	nov 4, 2013 4:43 PM	Melhoria da aprendizagem e aumento da retenção das matérias
93	nov 4, 2013 4:39 PM	some concepts would be easier to understand
94	nov 4, 2013 4:38 PM	because of the reasons described in the previous questions
95	nov 4, 2013 4:36 PM	NAP
96	nov 4, 2013 4:36 PM	Because it is a very dense course and the simulator helps to structure and solidify what was learnt
97	nov 4, 2013 4:34 PM	Because of all the answers I gave previously in this survey
98	nov 4, 2013 4:34 PM	Would improve my time response
99	nov 4, 2013 4:33 PM	practical relevance
100	nov 4, 2013 4:33 PM	Maybe it is a better way to understand concepts.
101	nov 4, 2013 4:32 PM	The use of simulators, in general, is a positive tool and would certainly facilitate the teacher's pedagogical function.
102	nov 4, 2013 4:31 PM	Because it would facilitate the learning on how the theoretical concepts would apply in practice.
103	nov 4, 2013 4:30 PM	Putting concepts into practice is crucial.
104	nov 4, 2013 4:28 PM	Because it would turn the subject more interesting, easier to learn and the acquired knowledge would endure for a longer period.
105	nov 4, 2013 4:24 PM	Because it's easier to understand accounting concepts in practical situations. For non business backgrounds like my own, accounting lingo is very hermetic and sometimes difficult to grasp. Having it play out in a
106	nov 4, 2013 4:23 PM	simulator may make grasping the concepts easier as you are enabled to relate them to one another in dynamic processes; i.e. contextual learning.
107	nov 4, 2013 4:21 PM	How can I recommend something I did not use? Stupid question.
108	nov 4, 2013 4:18 PM	It introduces a practical component
109	nov 4, 2013 4:17 PM	Interactive tool, learning curve increases a lot.
110	nov 4, 2013 4:16 PM	It would help the learning process.
111	nov 4, 2013 4:14 PM	To increase the understanding of accounting concepts in a practical approach
112	nov 4, 2013 4:14 PM	Eventually it can help you consolidate the concepts.
113	nov 4, 2013 4:12 PM	Because it would be much more simple and intuitive to interiorize the concepts.
114	nov 4, 2013 4:11 PM	I think it may increase the practical component of the course.
115	nov 4, 2013 4:10 PM	It helps you to acknowledge the course contents in a more solid way
116	nov 4, 2013 4:07 PM	.
117	nov 4, 2013 4:07 PM	It allows to put in practice what we have learned
118	nov 4, 2013 4:06 PM	Because it stimulates the active learning of practical questions, instead of just making standard exercises from the book.
119	nov 4, 2013 4:02 PM	I think it could be useful
120	nov 4, 2013 4:02 PM	Fun way to complement the learning experience! Turu turu tutututu

## An Interactive Learning Approach to Accounting Classes

### Annex 3 – Accounting Courses in Top Business Schools

#### In the United States of America <sup>5</sup>:

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
Not Ranked	1	University of ChicagoBooth School of Business	<a href="http://www.chicagobooth.edu/programs">http://www.chicagobooth.edu/programs</a>	<b>MBA:</b> Financial Accounting Managerial Accounting Accounting & Financial Analysis I (E) Accounting & Financial Analysis II (E) Financial Statement Analysis (E)	<p><b>Managerial Accounting:</b> This course provides you with a framework to understand and use the cost and accounting information you will encounter in careers in consulting, operations, marketing, or general management. The course covers the vocabulary and mechanics of cost accounting, basic issues involved in the design of managerial accounting systems, and the role of managerial accounting resource allocation and performance evaluation.</p> <p><b>Accounting and Financial Analysis I:</b> This course looks at the firm's accounting policy for a particular type of transaction and determines how that policy choice affects its primary financial statements. You will learn how to question whether these effects fairly reflect the underlying economics of the firm's transactions using the lenses of accounting, economics, finance, and strategy. The goal is to improve your ability to use an accounting report as part of an overall assessment of the firm's strategy and the potential rewards and risks of dealing with the firm.</p> <p><b>Accounting and Financial Analysis II:</b> You will learn to read and utilize information in corporate financial statements and understand the economic essence of important classes of complex business transactions. The course integrates insights from financial economics with the complexities of financial accounting to explore important issues of deal structuring, valuation, organizational design, corporate restructuring, business strategy, and incentives.</p> <p><b>Taxes and Business Strategy:</b> Investment bankers, financial executives, and consultants who want to have a competitive advantage by understanding how taxes impact the structure and value of deals; as well as managers and analysts who need to understand how firms strategically respond to tax incentives will find this course useful. You will learn to integrate concepts from finance, economics, and accounting to achieve a more complete understanding of the role of taxes in business strategy.</p> <p><b>Financial Statement Analysis:</b> You will be exposed to a financial analysis framework that provides links among a firm's business, its financial statements and associated disclosures, forecasting, and valuation. The perspective taken is that of an external stakeholder relying on publicly-available information for decision-making purposes</p>
1	20	University of Notre DameMendoza College of Business	<a href="http://business.nd.edu/programs/">http://business.nd.edu/programs/</a>	<b>Undergrad:</b> ACCOUNTANCY I ACCOUNTANCY II <b>MBA:</b> Financial Accounting I Financial Accounting II Corporate Financial Reporting (E) Strategic Cost Management E <b>MSc in Business:</b> Financial Accounting I Financial Accounting II	<p><b>Financial Accounting I:</b> This course addresses the accounting process used to measure and report economic events to outside stakeholders. The course focuses on fundamental concepts, required financial statements, and key relationships. The course emphasizes the role of accounting in contracts and in decision-making by investors, creditors, and regulators.</p> <p><b>Financial Accounting II:</b> This course continues the study of financial accounting. It discusses additional issues related to revenue recognition, inventory, long-lived assets, investments, and debt. The course emphasizes the role of accounting in contracts and in decision-making by investors, creditors, and regulators.</p> <p><b>Corporate Financial Reporting:</b> The objective of this course is for students to read, understand, and critically evaluate financial statement information. These skills are necessary for business analyses and understanding the financial press. ACCT 70120 builds on ACCT 60120 by addressing additional topics related to deferred income taxes, leases, retirement plans, controlled entities, and foreign operations. Journal entries, financial statement presentation, and financial statement footnote disclosures are examined. In addition, the rationale underlying the reporting requirements and management incentives for manipulating those requirements are explored. The text is supplemented with articles in the popular or financial press and actual financial statements.</p> <p><b>Strategic Cost Management:</b> This course is concerned with the development and use of cost information to create, communicate, implement and control strategies. This course requires you to take theoretical constructs, and using the firm's internal accounting system, apply them to actual, real-world managerial problems. Accordingly, this course is a problem-solving course, and as such requires you to gain familiarity with the topics by working on problems taken from practice. The topics covered include use of cost accounting in various internal decisions, transfer pricing, activity-based costing, customer profitability reporting, to name but a few. We will discuss both the benefits and limitations of accounting information in the context of various decisions and performance evaluation. This course is not about technical journal entries, detailed calculation of process costing, alternative computational methods of variances etc. Many of these cost accounting topics are described at a conceptual level. The focus is on the use of cost information in the context of various decisions and understanding the incentives of the parties involved in the decision. The textbook, selected problems at the end of each chapter and cases form the basis of the class discussions. One does not need any cost accounting background to take this course. We will build from basics.</p>

<sup>5</sup> Top Business Schools in the United States of America in 2012 (Graduate Programs) and 2013 (Undergraduate Programs), according to the BloombergBusinessweek ranking, available in <http://www.businessweek.com/bschools/rankings/>. Accessed in April 15<sup>th</sup>, 2014.



## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
Not Ranked	2	Harvard University Harvard Business School	<a href="http://www.hs.edu/mba/academic-experience/curriculum/Pages/default.aspx">http://www.hs.edu/mba/academic-experience/curriculum/Pages/default.aspx</a>	<b>MBA:</b> Financial Reporting and Control Business Analysis and Valuation Using Financial Statements (E)	<p><b>Financial Reporting and Control (FRC):</b> Recognizing that accounting is the primary channel for communicating information about the economics of a business, this course provides a broad view of how accounting contributes to an organization. Students will gain: an understanding of the concepts and language of accounting so it can be used as an effective tool for communication, monitoring, and resource allocation; mastery of the vocabulary of financial statements and accounting reports; familiarity with how modern accounting and control theory is used in evaluating economic conditions and making organizational decisions.</p> <p><b>Business Analysis and Valuation Using Financial Statements:</b> Students will be exposed to a comprehensive financial statement analysis and valuation framework that integrates strategy, financial reporting, financial analysis and valuation, application of this framework and tools to fundamental analysis, and the role of intermediaries that use these tools in capital markets. A valuation software specifically designed for this course will be used to provide hands-on experience. Over the semester several guest speakers, such as hedge fund managers and research analysts will share their experiences with the students.</p> <p>The first half of the course develops an accounting-based valuation framework that integrates a firm's strategy, its financial performance, and its accounting credibility. Two main topics will be covered: reporting strategy analysis (assessing a firm's value proposition and identifying key value drivers and risks; evaluating the degree to which a firm's accounting policies capture the underlying business reality; assessing a firm's earnings quality; making accounting adjustments to eliminate management biases); performance analysis and valuation evaluating current performance and its future sustainability, making forecasts of future profitability and risk, and valuing businesses using earnings and book value data. While doing the above, the course will often take the perspective of equity analysts, short sellers, and hedge fund activist investors. Some of the cases will include class visits by case protagonists.</p> <p>The second half of the course applies the above framework to a variety of business valuation contexts including equity-investment analysis, IPOs, spin-offs, mergers, short selling opportunities, and hedge fund activist investing strategies. To deepen students' ability to apply the course skills in a practical context, they will work on a group project. The project will involve a complete financial statement analysis of a firm using the course framework. Groups will consist of students working individually on related companies, with a group effort to integrate the separate analyses. The last few sessions of the course will be devoted to the development and execution of these projects.</p>
2	Not Ranked	University of Virginia McIntire School of Commerce	<a href="http://www.commerce.virginia.edu/undergrad/Pages/default.aspx">http://www.commerce.virginia.edu/undergrad/Pages/default.aspx</a>	<b>Undergrad (Major in Accounting):</b> Quantitative and Financial Analysis Intermediate Accounting I Intermediate Accounting II Special Topics in International Accounting (E) Advanced Financial Accounting (E) Strategic Cost Management (E) Topics in Accounting: Financial Statement Analysis (E)	<p><b>Strategic Cost Management:</b> This course explores the roles of accounting information in strategically positioning the firm and in improving performance and examines cost management problems and practices in the United States and selected foreign firms. The course primarily deals with activity-based cost management, kaizen, target costing, and the balanced scoreboard. Additional topics include the theory of constraints, the strategic value chain, the half-life metric for improvement, and the role of accounting in managing quality.</p> <p><b>Advanced Financial Accounting:</b> This course covers accounting and financial reporting for business combinations (including consolidated financial statements), international accounting issues, foreign currency translation, reorganizations and liquidations, accounting requirements of the Securities and Exchange Commission, and accounting for partnerships. It emphasizes the conceptual understanding of major issues and technical accounting requirements.</p> <p><b>Special Topics in Accounting: Financial Reporting:</b> The purpose of this course is to expand participants' knowledge of financial reporting and to familiarize them with topics currently of interest to the accounting profession, the Financial Accounting Standards Board, and the Securities and Exchange Commission. To achieve these objectives, the course examines accounting issues from two perspectives. First, we will explore financial reporting and financial reporting issues from a user perspective. This perspective should enable participants to understand the significance of financial statement components more completely and will facilitate their future performance in their financial statement analysis course. Second, we will examine the authoritative accounting literature underlying acceptable accounting choices. As accounting professionals, participants will often be faced with ambiguous or unclear accounting issues. This perspective will improve their ability to conduct financial reporting research and to provide concise and thoughtful resolutions to these issues. The perspective will also provide a foundation for future graduate course in accounting policy. The pedagogy for the course includes lectures, readings, illustrative class examples, research cases, memorandum preparations and class presentations.</p> <p><b>Accounting Policy:</b> This course covers the theory and practice of corporate financial reporting and highlights the development of generally accepted accounting principles (GAAP) and accounting policy choices from two perspectives.</p>
5	3	University of Pennsylvania The Wharton School	<a href="http://www.wharton.upenn.edu/academics/academics.cfm">http://www.wharton.upenn.edu/academics/academics.cfm</a>	<b>Undergrad (Major in Accounting):</b> Intermediate Financial Accounting (1st Semester) Intermediate Financial Accounting (2nd Semester) Cost Accounting (E) International Accounting (E) Financial Accounting: Analysis & Reporting Incentives (E) Accounting for Mergers, Acquisitions & Complex Financial Structures (E)	<p><b>MBA:</b>                      Fundamentals of Financial and Managerial Accounting</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
3	Not Ranked	Cornell UniversityDyson School of Applied Economics & Management	<a href="http://dyson.cornell.edu/undergrad/courses.php">http://dyson.cornell.edu/undergrad/courses.php</a>	<b>Undergrad:</b> Financial Accounting Managerial Accounting Intermediate Accounting I Intermediate Accounting II Advanced Accounting	<p><b>Financial Accounting:</b> Comprehensive introduction to financial accounting concepts and techniques, intended to provide a basic understanding of the accounting cycle, elements of financial statements, underlying theory of GAAP, and financial statement interpretation. Topics include methods of recording inventory, receivables, depreciation, bonds, and equity. Requires two evening prelims and a comprehensive final; weekly homework assignments.</p> <p><b>Managerial Accounting:</b> Introduction to cost accounting emphasizing the application of accounting concepts to managerial control and decision making. Major topics include product costing, standard costing, cost behavior, cost allocation, budgeting, variance analysis, and accounting systems in the manufacturing environment. Requires use of electronic spreadsheets. Includes an evening prelim, a second exam, and weekly homework.</p> <p><b>Intermediate Accounting I:</b> Includes an overview of Generally Accepted Accounting Principles, balance sheet valuation, and income measurement and recognition. Other topics include accounting for pensions, earnings per share, and special financial reporting issues.</p> <p><b>Intermediate Accounting II:</b> Continuation of the in-depth study of accounting theory, generally accepted accounting principles, and the techniques involved in measuring, recording, summarizing, and reporting financial data for business organizations. Learn the GAAP accounting for revenue, investments, pensions, taxes, accounting changes, and statement of cash flows. Understand accounting alternatives within GAAP and accounting alternatives to GAAP for the topics covered so that students are prepared to understand and use future changes in GAAP. Course objectives will be achieved by a combination of lectures and analyzing and discussing articles from the financial press and cases that are based on actual financial statements.</p> <p><b>Advanced Accounting:</b> Detailed analytical study of special issues and situations in financial accounting. Continuous emphasis is placed on the relationship between theory and practice to reflect the latest professional pronouncements. Highly technical topics related to corporation, partnership, government, and not-for-profit organizations, with a focus on business combinations and the particular accounting challenges that they present.</p>
Not Ranked	4	Stanford UniversityStanford Graduate School of Business	<a href="http://www.gsb.stanford.edu/programs">http://www.gsb.stanford.edu/programs</a>	<b>MBA:</b> Financial Accounting Managerial Accounting	<p><b>Financial Accounting:</b> Financial accounting is the measurement of economic activity for decision-making. Financial statements are a key product of this measurement process and an important component of firms' financial reporting activities. The objective of this course is not to train you to become an accountant but rather to help you develop into an informed user of financial statement information. While financial statement users face a wide variety of decisions, they are often interested in understanding the implications of financial statement information for the future cash flows and earnings potential of a firm. We will focus on understanding the mapping between underlying economic events and financial statements, and on understanding how this mapping affects inferences about future profitability and liquidity. The following learning objectives will be emphasized: (1) familiarity with the transactions businesses engage in, (2) fluency in accounting terminology, (3) understanding the structure that maps transactions into accounting numbers, (4) understanding the rationale for various accounting methods, and (5) awareness of the judgment involved and the discretion allowed in choosing accounting methods, making estimates, and disclosing information in financial statements.</p> <p><b>Managerial Accounting:</b> Managerial accounting refers to the preparation and use of information for internal planning, control, coordination, and performance evaluation purposes. This orientation contrasts with financial accounting where the focus is on accounting disclosures to parties external to the firm. The first part of the course covers the vocabulary and mechanics of cost accounting, issues involved in the design of an internal cost accounting system, and the role of accounting information in decision making. Included in this are discussions of capacity costs, inter-departmental allocations, and activity-based management in manufacturing and service environments. We will pay particular attention to the trade-offs embedded in the choice of internal accounting systems. The second part of the course will examine the role of internal accounting systems in evaluating the performance of individual business segments and divisions of the firm. Included in this part are topics related to the choice of internal pricing methods for transferring goods and services across divisions of the firm and the use of financial metrics for assessing the profitability of these divisions.</p>
4	31	Washington University, St. LouisOlin Business School	<a href="http://www.olin.wustl.edu/EN-US/academic-programs/Pages/default.aspx">http://www.olin.wustl.edu/EN-US/academic-programs/Pages/default.aspx</a>	<b>Undergrad in BA:</b> Accounting <b>MBA:</b> Financial Accounting Strategic Cost Analysis	<p><b>Financial Accounting:</b> In this course, we will study the three fundamental financial accounting issues, including (1) recognition, (2) measurement/valuation, and (3) classification/disclosure, and consider how business transactions are reflected on the financial statements using generally accepted accounting principles (GAAP). We will cover the four primary financial statements (balance sheet, income statement, statement of stockholders' equity, and statement of cash flows), the supporting footnotes to these statements, and several reports (annual reports, proxy statements, and press releases). The course incorporates both a preparer's perspective (i.e., how to apply GAAP requirements for recording and presenting financial information) and a user's perspective (i.e., how an investor or analyst can interpret and use financial statement information).</p> <p><b>Strategic Cost Analysis:</b> This course provides an introduction to cost concepts, cost behavior, and cost systems. Understand how strategy, technology and the environment affect a firm's choice of cost system type and system design alternatives. Discuss how cost system choices, in turn, influence tactical and strategic managerial decision-making. Tools such as cost-volume-profitability analysis, customer profitability, value chain analysis, and relevant-cost analysis are presented. Case discussions illustrate the application of course topics.</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
Not Ranked	5	Northwestern University Kellogg School of Management	<a href="http://www.kellogg.northwestern.edu/programs.aspx">http://www.kellogg.northwestern.edu/programs.aspx</a>	<b>Undergrad:</b> Accounting and Business Finance MSc in Management: Accounting for Decision Making Managerial Accounting (E) <b>MBA:</b> Accounting for Decision Making	<b>Accounting for Decision Making:</b> This course acquaints students with the process used to construct and understand the financial reports of organizations. The objective is to understand the decisions that must be made in the financial reporting process and to develop the ability to evaluate and use accounting data. Emphasis is placed on understanding the breadth of accounting measurement practices and on being able to make the adjustments necessary for careful analysis. The course highlights the linkages between accounting information and management planning, and decision making and control.
Not Ranked	6	Duke University Fuqua School of Business	<a href="http://www.fuqua.duke.edu/programs/">http://www.fuqua.duke.edu/programs/</a>	<b>Master of Management:</b> Introduction to Financial Accounting Principles of Cost and Managerial Accounting <b>MBA:</b> Financial Accounting Managerial Accounting Corporate Financial Reporting	<b>Introduction to Financial Accounting:</b> Financial accounting develops your ability to read, understand, and use corporate financial reports. Discover the basics of bookkeeping, accounting terminology, and fundamental accounting concepts, including the definitions of financial statement elements. Explore the accounting treatments of key transactions (e.g., making sales on credit to customers, collecting cash from those customers, raising capital). Understand how financial reports portray the effects of underlying economic events and use this portrayal to draw inferences about future profitability. Learn the financial reporting process, because understanding the environment in which financial reporting takes place facilitates the evaluation of information provided by firms in published financial statements. <b>Principles of Cost and Managerial Accounting:</b> Study the use of accounting information for internal decision-making and control purposes as opposed to the external disclosure focus of the financial accounting course. Integrate accounting principles with ideas from microeconomics, data analysis, decision analysis, finance, and operations management. The topical coverage of the course emphasizes the design of management accounting systems for analyzing costs in the context of the firm's business model, and the use of managerial accounting data in planning and controlling operations. <b>Financial Accounting:</b> This course addresses the construction and interpretation of corporate financial reports. Our goal is not to train you to become an accountant. Rather, we want you to become an informed user of financial statement information. Because annual reports are somewhat formidable, we will spend time discussing how firms present the information for various accounts in the statements, including the footnotes. Specifically, we will focus on accounting for specific assets (e.g., Accounts Receivable, Inventories, Property, Plant and Equipment, Intangible Assets), liabilities (e.g., Bonds, Deferred Taxes) and owners' equity on a firm's balance sheet. We will also focus on how a firm's performance is presented in the income statement through Net Income, and in particular, discuss how different revenue and expense recognition practices affect this performance measure. By the end of the course, you should have a basic understanding of financial statements and the ability to use them for decision making. Fulfillment of these objectives involves acquiring several skills. We will emphasize i) gaining familiarity with the transactions firms engage in, ii) the mapping of transactions into accounting numbers, iii) understanding the choices that managers have in accounting for transactions and the rational behind the various methods, iv) developing fluency in accounting terminology, and v) appreciating the complexity of accounting due to discretion and judgment involved in choosing among alternative methods. <b>Managerial Accounting:</b> The Fuqua managerial accounting course is divided into two parts. First, we examine firms' managerial accounting systems and their use in decision-making. Second, we examine these accounting systems and their use in planning, control, and performance evaluation. The course begins with a discussion of the basic vocabulary and mechanics of managerial accounting systems. For the remainder of the course, students focus on identifying and extracting relevant information from managerial accounting systems as an input to decision making and performance evaluation. The course objectives are reinforced through the lecture notes and course packet readings, assigned case write-ups, class and group discussions and problem-solving, and numerical problems. <b>Corporate Financial Reporting:</b> The objectives of this course are to 1) increase your familiarity with advanced financial reporting topics by considering the economics of selected transactions, 2) develop your understanding regarding whether and how treatment under generally accepted accounting principles captures the economics of those transactions and events, and 3) enhance your ability to rigorously evaluate corporate financial reports.
6	48	Boston College Carroll School of Management	<a href="http://www.bostoncollege.edu/schools/csom/">http://www.bostoncollege.edu/schools/csom/</a>	<b>Undergrad:</b> Financial Accounting Managerial Accounting Financial Accounting Standards and Theory I (E) Financial Accounting Standards and Theory II (E) Managerial Cost and Strategic Analysis (E) Financial Statement Analysis (E) Accounting Information Systems (E) <b>MBA:</b> Accounting Financial Reporting and Controls	<b>Financial Accounting:</b> This course develops an understanding of the basic elements of financial accounting and the role of accounting in society. Students are introduced to financial statements and to the fundamental accounting concepts, procedures, and terminology employed in contemporary financial reporting. The skills necessary to analyze business transactions, to prepare and comprehend financial statements, and to examine a firm's profitability and financial condition are developed. Students are required to use the Internet to conduct a financial statement analysis project. <b>Managerial Accounting:</b> This course explains the usefulness of accounting information for managerial decision-making in the areas of analysis, planning, and control. The fundamentals of managerial accounting, including product costing, cost-volume-profit relationships, cash budgeting and profit planning, and performance evaluation are included. Ethical and international issues of importance to accountants are emphasized. <b>Accounting:</b> At the outset, course work will be concerned with the development and use of accounting information to evaluate the status and performance of business enterprises. Attention will be given to the reporting of information for use by persons and institutions outside the enterprise. In the second part of the course, the focus will be on the use of accounting information in managerial decision making.
Not Ranked	7	Cornell University Johnson Graduate School of Management	<a href="http://www.johnson.cornell.edu/ap/index.html.aspx">http://www.johnson.cornell.edu/ap/index.html.aspx</a>	<b>MBA:</b> Financial Accounting	

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
7	22	Emory University Goizueta Business School	<a href="http://www.emory.edu/home/index.html">http://www.emory.edu/home/index.html</a>	<p><b>Bachelor of BA:</b>            Financial Accounting            Managerial Accounting            Financial Reporting I &amp; II (E)            Advanced Managerial Accounting (E)            Advanced Financial Accounting (E)            Financial Statement Analysis (E)</p> <p><b>MBA:</b>            Financial Reporting &amp; Analysis            Advanced Financial Accounting (E)            Financial Reporting I &amp; II (E)            Financial Statement Analysis (E)</p>	<p><b>Financial Accounting:</b> An introduction to the principles, procedures, and objectives of an accounting system. Discussion of the format and content of general purpose financial statements.</p> <p><b>Managerial Accounting:</b> In an ever-changing business environment, managerial accounting information plays an increasingly important role in understanding business activities. Both financial and non-financial information must be utilized by managers in planning, directing, motivating and controlling organizations, and this course provides an introduction to many of the concepts and procedures necessary for effective business decision-making. Topics which are examined include traditional cost systems, activity-based cost systems, cost behavior analysis, break-even and cost-volume-profit analysis, budgeting, standard costing, transfer pricing systems, relevant costs, and responsibility accounting.</p> <p><b>Financial Reporting:</b> Intermediate financial accounting course on issues pertaining to the measurement, valuation, and communication of the various components of financial statements. Accounting issues are examined from the view of the accountant as well as from the perspectives of investors and managers. An analytical and critical posture is adopted to make the student proficient in the preparation of financial reports and in how these issues affect the use of financial reports and in how these issues affect the use of financial data in decision making. Investigation of special problems in selected areas of accounting. Topics include accounting for business combinations, consolidated financial statements, SEC reporting, foreign currency accounting, government and non-profit accounting, and partnership accounting.</p> <p><b>Financial Statement Analysis:</b> This course focuses on the techniques commonly used to analyze financial statements and related information: business strategy analysis, financial reporting and disclosure analysis, financial ratios, forecasting and pro forma financial statements, and valuation. Students will develop hands-on experience analyzing actual financial statements for a variety of business purposes including security analysis, mergers and acquisitions, corporate restructuring, risk assessment, credit analysis and commercial lending, and management's strategic communication to external parties.</p> <p><b>Financial Reporting &amp; Analysis:</b> Financial reports are used mainly to set up and monitor contracts between the firm and its stakeholders, and to value these stakeholders' claims on the firm's assets. As such, financial reporting plays a vital role in everyday commerce and in the broader functioning of a market economy. Still, to the average business person, financial reports are nothing short of impenetrable and daunting. Business leaders must feel comfortable evaluating and discussing financial information, so understanding and analyzing financial reports is a core competency that you need to start developing early on in the MBA program. This course will teach you the basics of financial reporting and analysis. The first part of the course deals with the mechanics of financial statements, while the second part tackles widely used fundamental analysis techniques. Then we will spend the last half of the course integrating the first two parts by focusing on the measurement, reporting and analysis of common business transactions. Start your grounding in financial accounting theory and application, first by using financial statements in corporate annual reports; then by understanding the impact of business decision making on financial statements. Includes an introduction to accounting policy issues and how policy affects business strategy and management decisions.</p>
8	8	University of Michigan, Ann Arbor Ross School of Business	<a href="http://www2.bus.umich.edu/MyImpact/academics/core">http://www2.bus.umich.edu/MyImpact/academics/core</a>	<p><b>Bachelor of BA:</b>            Financial Accounting            Managerial Accounting            Intermediate Financial Accounting (E)            Cost Accounting (E)</p> <p><b>MBA:</b>            Principles of Financial Accounting            Management Accounting</p>	<p><b>Financial Accounting:</b> Financial Accounting provides students with their first exposure to what is essentially the language of business. Students will learn how the economic activities of a business are reported in a set of financial statements and how the information in financial statements can be used to assess the risk and performance of the business. Emphasis will be placed on fundamental concepts and principles of financial accounting and the ability to apply those concepts and principles in business-related decision making.</p> <p><b>Managerial Accounting:</b> Managerial Accounting focuses on how accounting is used from the internal, manager perspective. Students will learn how accounting information is used by management in decision-making situations, such as how to determine the cost and profit of a particular product/service, how management determines which service/product lines to discontinue, and when it is in the best interest of a company to outsource their work. Emphasis will be placed on concepts and principles and the ability to apply those concepts and principles to internal, management decisions.</p> <p><b>Intermediate Financial Accounting:</b> This is an intermediate financial accounting course that focuses on asset, liability and owners' equity measurement and timing of recognition issues, together with the associated income determination problems. The course is designed to serve as the first post-introductory course for those who wish to obtain substantial training in financial accounting. The course is also designed to serve the needs of financial statement users who wish to obtain additional training beyond the introductory level.</p> <p><b>Cost Accounting:</b> An intermediate course about the managerial use of accounting data to plan and control personnel and operations in the firm. The focus is on planning, decision-making, and control by organizations, and on the accounting systems that managers have to assist them in their decisions about resource allocation and performance evaluation. In addition to students in accounting, the course is designed for those who plan careers in management at all levels and in all functions and who will need to motivate other employees and evaluate both managers and business units in the organization.</p> <p><b>Principles of Financial Accounting:</b> This course introduces the basic concepts and methods used in corporate financial statements for the information of investors and other interested external parties. Readings, problems and cases are used. Major topics included are: The Basic Accrual Model, Analysis of Transactions, Balance Sheet, Income Statement and Cash Flow Statement Construction and Analysis. The course also emphasizes analysis of cases and actual financial reports and concerns the applications of the basic concepts and methods of financial accounting to issues such as long-term assets, inventory, sales, receivables, debt securities, corporate ownership, international operations, and analysis of financial statements.</p> <p><b>Management Accounting:</b> This course introduces the basic concepts of managerial accounting for internal decision-making. Major topics included are product costing, emphasizing costing approaches used in today's business environments, relevant costs for decision analysis, variance analysis, divisional performance evaluation, and transfer pricing.</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
19	9	Massachusetts Institute of Technology Sloan School of Management	<a href="http://mitsloan.mit.edu/academic/">http://mitsloan.mit.edu/academic/</a>	<p><b>Bachelor of Science in Management (Finance Concentration with Minor in Management):</b>            Corporate Financial Accounting            Business Analysis Using Financial Statements</p> <p><b>MBA:</b>            Financial Accounting            Management Accounting and Control</p>	<p><b>Corporate Financial Accounting:</b> Preparation and analysis of financial statements. Focuses on why financial statements take the form they do, and how they can be used in evaluating corporate performance and solvency and in valuation of corporate securities. Introduces concepts from finance and economics (e.g., cash flow discounting and valuation) and explains their relation to, and use in, accounting. Students taking the graduate version complete additional assignments. Permission of Sloan Educational Services required for all cross-registrants.</p> <p><b>Business Analysis Using Financial Statements:</b> Primary learning objective is the strategic, financial, and accounting analysis of a company's profitability and riskiness by means of financial statement data. A second, and related, learning objective is the valuation of a company using financial statement data. Concepts are applied to a number of decision making contexts, including securities analysis, credit analysis, merger analysis, and company performance assessment.</p> <p><b>Financial Accounting:</b> An intensive introduction to the preparation and interpretation of financial information. Adopts a decision-maker perspective of accounting by emphasizing the relationship between accounting data and the underlying economic events generating them. Class sessions are a mixture of lectures and case discussion. Assignments include textbook problems, analysis of financial statements, and cases.</p> <p><b>Management Accounting and Control:</b> Introduces participants to the language and methodologies of internal accounting practices. Topics include cost allocations, absorption costing, standard costing, transfer pricing, and performance measurement and evaluation. Major focus is on identifying which information is useful and which is useless and potentially misleading.</p>
9	19	University of Texas, Austin McCombs School of Business	<a href="http://www.mcombs.utexas.edu/">http://www.mcombs.utexas.edu/</a>	<p><b>Bachelor of BA:</b>            Fundamentals of Financial Accounting            Fundamentals of Managerial Accounting</p> <p><b>MBA:</b>            Financial Accounting            Performance Management and Control (E)            Advanced Topics in Financial Reporting (E)            Financial Statement Analysis (E)</p>	<p><b>Fundamentals of Financial Accounting:</b> Concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements.</p> <p><b>Fundamentals of Managerial Accounting:</b> Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing.</p> <p><b>Financial Accounting:</b> This course provides an introduction to the concepts and issues of financial accounting, with an emphasis on the interpretation of financial statements. The course presents an overview of the accounting model, its aims, its continuing evolution, and the notion of earnings persistence. By the end of the course, you should feel comfortable interpreting a company's annual report.</p> <p><b>Performance Management and Control:</b> This is an accounting course, but it is emphatically NOT a course about annual reports and 10-Ks. The class is built around key questions that managers must deal with relating to planning, decision making and control. We use cases as the basis for discussing these questions, addressing both quantitative and qualitative aspects of how companies create their internal numbers, how they use those numbers to make decisions and measure the success or failure of those decisions (and of those who make them), and how the design of measurement systems and assumptions sometimes distorts those numbers. The course is intended to be broadly applicable for all types of MBA students, including those who will work in less quantitative areas but will nonetheless need to understand and interpret an organization's internal accounting data.</p> <p><b>Advanced Topics in Financial Reporting:</b> This course is designed specifically to meet the needs of MBA students for a serious accounting course. The topics are the "best of" those offered to our masters in accounting students in their two-semester sequence in intermediate and advanced accounting, but the course adopts a "user" as opposed to a "preparer" perspective. This course will allow you to understand much of the information presented in the footnotes to the financial statements in corporate reports, including accounting for mergers and acquisitions and corporate combinations.</p> <p><b>Financial Statement Analysis:</b> This course provides an overview of the use of financial accounting information for evaluating past performance and predicting future performance of a company or division. There is some overlap with Intermediate/Advanced Accounting in topics, but this course is more focused on use of the information in the context of valuing publicly-traded common stocks. The analysis process consists of five steps: (a) analyzing the industry and economic environment in which the firm operates; (b) analyzing the accounting methods that the firm uses; (c) analyzing the recent financial performance and position of the firm, over time and in comparison to other firms; (d) forecasting the financial performance of the firm in the future; and (e) estimating the value of the firm.</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
Not Ranked	10	University of Virginia Darden School of Business	<a href="http://www.darden.virginia.edu/web/Home/">http://www.darden.virginia.edu/web/Home/</a>	<b>MBA:</b> Accounting for Managers Management Planning and Control Systems (E) Financial Reporting & Analysis (E) Financial Statement Analysis and Corporate Valuation (E)	<p><b>Accounting for Managers:</b> As the language of business and the cornerstone of the financial capital markets, accounting provides terminology, frameworks, and concepts with which to understand and analyze the financial consequences of business activities. As these activities have become increasingly complex and global, the task of presenting timely, relevant, and reliable financial information to interested internal and external users has become more challenging. The primary purpose of the first-year program ACC core course is to provide students with considerable financial-statement, financial-analysis, and financial-management expertise in order to enhance their decision-making capabilities. This course consists of two complementary components: managerial accounting and financial accounting. Managerial accounting has an internal focus and pertains to the collection and analysis of financial information relevant to business operations, including costs analysis, product and service costing, planning, budgeting, and performance evaluation. Financial accounting pertains to the preparation and analysis of financial statements primarily intended for use by external constituents such as investors, creditors, and government regulators. This course takes primarily a user's perspective rather than a preparer's perspective. Nevertheless, it emphasizes the importance of understanding generally accepted accounting principles and practices, including the rationale for existing accounting standards and the reasons for accepted alternatives. Students will be challenged to consider the implications of alternative accounting measurements to various business decisions and various business stakeholders. Throughout the course, the topics covered are presented with the intent of being thought-provoking and managerially relevant.</p> <p><b>Management Planning and Control Systems:</b> This course is intended to provide students with an understanding of the design and use of planning and control systems to facilitate the implementation of an organization's strategy. Many organizations have discovered that having a great strategy is not enough if the right structures and processes are not in place to implement that strategy. A major challenge facing most organizations is to design systems that allow them to drive growth and profitability without subjecting the organization to long-term risk. This course examines the design and use of planning and control systems for implementing organizational strategy and achieving growth and profit goals. The primary focus in the course is on accounting-based controls that involve the use of financial measures and tools for allocating resources, measuring performance, and regulating inter-unit activity.</p> <p><b>Financial Reporting and Analysis:</b> This course is intended to provide students with a comprehensive conceptual and applied understanding of our society's accounting and financial-reporting system and an in-depth look at the numerous factors that managers and executives must consider as they confront complex and difficult financial-accounting and reporting issues. Students will examine these issues from both a rigorous theoretical perspective and an informed practical perspective. Students also will explore such traditional issues as revenue recognition, cash-flow analysis, deferred taxes and leases, and contemporary issues such as pensions and other postemployment benefits, stock compensation, and financial derivatives. Although the primary focus of the course will be on accounting and reporting practices in the United States, students will also address the significant progress that has been made toward the convergence of U.S. GAAP and International Financial Reporting Standards (IFRS). By the end of the course, students should be reasonably proficient at understanding, interpreting, and analyzing the information contained in corporate financial statements and their related footnotes and also able to judge the overall quality of a company's financial reporting, identify critical accounting policies, and assess the reasonableness of those policies and their supporting estimates and judgments.</p>
10	17	University of North Carolina, Chapel Hill Kenan-Flagler Business School	<a href="http://www.kenan-flagler.unc.edu/programs">http://www.kenan-flagler.unc.edu/programs</a>	<b>Undergraduate Business:</b> Managerial Accounting Financial Accounting and Analysis Financial Reporting (E) Global Financial Statement Analysis (E) <b>MBA:</b> Financial Accounting Managerial Accounting Financial Statement Analysis (E) Topics in Advanced Financial Reporting (E)	<p><b>Managerial Accounting:</b> Managerial accounting provides information for decision making, product-costing, and planning-control-evaluation activities. This course takes the perspective of both the user and the preparer of accounting information. The emphasis is on the fundamental concepts and the strategic importance of accounting data to managerial activity with special consideration given to the underlying accounting procedures and the underlying accounting processes. During this course, you should specifically: Develop an appreciation for the role of accounting data in decision making, product-costing, and planning-control-evaluation activities; Embrace an understanding of the data accumulation process in order to facilitate effective communication between managers and accountants; Master specific techniques for using a myriad of accounting information in multiple situations; and Internalize contemporary concerns with respect to U.S. productivity and the world economy along with implications for information systems.</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
24	11	Carnegie Mellon University Tepper School of Business	<a href="http://tepper.cmu.edu/programs/index.aspx">http://tepper.cmu.edu/programs/index.aspx</a>	<p><b>Undergraduate Business:</b> Introduction to Accounting Cost Accounting (E) Corporate Financial Reporting (E) Financial Statement Analysis (E)</p> <p><b>MBA:</b> Accounting I Accounting II</p>	<p><b>Introduction to Accounting:</b> This course provides the knowledge and skills necessary for the student to understand financial statements and financial records and make use of the information for management and investment decisions. Topics include an overview of financial statements and business decisions; the balance sheet, the income statement, and the cash flow statement; sales revenue, receivables, and cash; cost of goods sold and inventory; long-lived assets and depreciation, and amortization; current and long-term liabilities; owners' equity; investments in other corporations; an introduction to financial statement analysis and international issues dealing with financial statements.</p> <p><b>Cost Accounting:</b> The purpose of this course is to provide an introduction to the measurement and allocation of costs. Emphasis will be given to the use of cost information in decision making in organizations. The course will cover standard topics in cost accounting, such as cost behavior and relevant costs, and will connect these to broader issues in microeconomics, decision theory, corporate finance, and operations management. Classes will be a mixture of conventional lectures and laboratory experiments.</p> <p><b>Corporate Financial Reporting:</b> This course is designed to strengthen your ability to correctly interpret financial statements and their accompanying disclosures. The course is aimed at anyone whose career might involve working with accounting data, and should be especially useful for those interested in consulting and financial analysis. Throughout the semester we will discuss the key disclosure rules in the United States, the communication methods available to managers, managers' incentives and ability to exert discretion over reported earnings, and the interplay between a company's corporate strategy and its financial reporting policies and practices. The course revolves around a number of topics of recent interest to the business community including the quality of earnings, mergers and acquisitions, purchased R&amp;D, post employment benefits, executive compensation, and intangible assets.</p> <p><b>Financial Statement Analysis:</b> This course is about fundamental analysis using financial statements. We develop and apply technologies for understanding and identifying firm activities that generate shareholder value and for developing valuation benchmarks. The ultimate goal of such analysis is to aid the security valuation and risk analysis exercises. This course is intended to help students establish a good foundation and introduce students the basics of equity and debt analysis techniques.</p>
11	14	University of California, Berkeley Haas School of Business	<a href="http://www.haas.berkeley.edu/programs.html">http://www.haas.berkeley.edu/programs.html</a>	<p><b>Undergrad:</b> Introduction to Financial Accounting Introduction to Managerial Accounting Intermediate Financial Accounting (E) Advanced Financial Accounting (E) Special Topics in Accounting (E) Strategic Cost Management (E)</p> <p><b>MBA:</b> Financial Accounting Financial Information Analysis (E) Corporate Financial Reporting (E) Managerial Accounting (E)</p>	<p><b>Financial Accounting:</b> This course examines accounting measurements for general-purpose financial reports. An objective of the course is to provide not only a working knowledge but also a clear understanding of the contents of published financial statements.</p> <p><b>Financial Information Analysis:</b> This course provides a framework for business analysis and valuation using financial statement data and shows how to apply this framework to a variety of business decisions. Prerequisite: a good working knowledge of accounting, finance, economics and business strategy. The focus is on integrating key concepts from each of these areas and applying them to financial decision-making.</p> <p><b>Corporate Financial Reporting:</b> The course is aimed at users of financial statements. The definition of users is broad and includes lenders, equity analysts, investment bankers, board of directors, mergers and acquisition analysts, hedge fund managers, private equity, corporate/business development manager, and others interested in evaluating and monitoring corporate performance. The course objectives are to develop students' understanding of the environment in which financial reporting choices are made and help them understand GAAP rules so that they can read, interpret, evaluate, and analyze financial statements.</p> <p><b>Managerial Accounting:</b> This course is concerned with how a manager uses accounting information within his or her organization. Managers need information to perform three essential functions in an organization: (1) planning operations, (2) controlling and evaluating performance, and (3) making decisions. The purpose of this class is to show what information is needed within an organization, where this information can be obtained, and how this information can be used by managers to plan, control, and make decisions. The course will emphasize that there is no perfect (cost) accounting system and will present the trade-offs that managers have to make between designing systems for reporting, decision-making, control and performance evaluation.</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
Not Ranked	12	Dartmouth CollegeTuck School of Business	<a href="http://www.tuck.dartmouth.edu/">http://www.tuck.dartmouth.edu/</a>	<p><b>MBA:</b>            Financial Measurement, Analysis, &amp; Reporting I            Financial Measurement, Analysis, &amp; Reporting II            Advanced Issues in Accounting (E)            Financial Reporting &amp; Statement Analysis (E)            Financial Statement Interpretation &amp; Analysis (E)            Managerial Accounting (E)</p>	<p><b>Financial Measurement, Analysis, &amp; Reporting I:</b> This course develops the fundamental concepts and procedures underlying corporate financial statements (including the income statement, balance sheet and statement of cash flows) that are prepared under generally accepted accounting principles. It also introduces tools for analyzing profitability and risk and for preparing projected financial statements.</p> <p><b>Financial Measurement, Analysis, &amp; Reporting II:</b> This course studies the impact on corporate financial statements of alternative accounting choices available under generally accepted accounting principles. It explores the faithfulness with which a firm's financial reporting strategy represents its underlying economic circumstances.</p> <p><b>Advanced Issues in Accounting:</b> Advanced Issues in Accounting will be structured as a continuation of the core financial accounting course. Topics include: accounting for investments (e.g., marketable securities, affiliated companies-equity accounting, and subsidiaries-consolidations); accounting for pension and other post employment benefits; foreign currency translations; accounting for derivatives, and off-balance sheet finance arrangements (e.g., variable interest entities-the financial structures used by Enron). The mini-course will be structured so that some of the more difficult issues discussed in the core will be briefly revisited (e.g., accounting for deferred taxes). Compared to the core accounting course, this course will be more case-based and less lecture orientated. Nevertheless, we will still work through a summary set of notes in class to ensure a solid understanding of the fundamental concepts before applying them within the context of a case. This course should prepare students well for analyzing financial statements.</p> <p><b>Financial Reporting &amp; Statement Analysis:</b> FRSA is aimed at those students who are headed toward a career in consulting or general management and believe some additional reinforcement of accounting would be helpful. The perspective is that of an inside manager or consultant interested in using financial statements as a starting point for understanding a firm's value and creating additional value. FRSA moves a bit more slowly than FSIA to allow some reinforcement of the first year core accounting course FMAR. FRSA will have an individual, take-home mid-term exam and an end-of-term, team-oriented course project. Grades will be based on assignments, classroom participation, mid-term exam, and team report.</p> <p><b>Financial Statement Interpretation &amp; Analysis:</b> FSIA is aimed at those students with stronger accounting and finance skills (perhaps even a CPA or CFA) and, hopefully, headed toward investment banking, private equity, securities analysis, etc. The perspective is that of an outsider attempting to assess and value the firm. The first ten classes will develop analytical skills and will look at a variety of different (young, high growth; acquisition-oriented; cyclical; and financial) situations. The pace is quick. During the last eight class sessions, the class will look at 8 different industries (retailers, manufacturers, services, and financial firms) and four companies in each industry. Students will be organized into teams to study and report on the companies. Grades will be based on assignments, classroom participation, and the company reports. Each student will be a part of two teams and contribute to two reports.</p> <p><b>Managerial Accounting:</b> This course uses the concepts of opportunity cost and organizational architecture as a conceptual framework for the study of managerial accounting. Opportunity cost is the conceptual foundation underlying decision-making; organizational architecture is the conceptual foundation underlying the use of accounting as part of the firm's control mechanism. We examine these issues using both a textbook and case discussions. The major topics include cost behavior; accounting costs versus opportunity costs; divisional performance measures; transfer pricing; budgeting; cost allocation; activity-based costing; and cost variance analysis.</p>
12	32	Brigham Young UniversityMarriott School of Management	<a href="http://marriottschool.byu.edu/sitemap/?id=303">http://marriottschool.byu.edu/sitemap/?id=303</a>	<p><b>Bachelor in Management:</b>            Principles of Accounting</p> <p><b>MBA:</b>            Corporate Financial Reporting            Managerial Accounting            Advanced Corporate Financial Reporting (E)            Financial Statement Analysis (E)</p>	<p><b>Corporate Financial Accounting:</b> Analyzing financial accounting and reporting issues used by perspective managers.</p> <p><b>Managerial Accounting:</b> Objectives and procedures of cost accounting. Topics include job costing, joint product costing, cost behavior analysis, standard costs, cost allocation problems, and cost data use in management.</p> <p><b>Advanced Corporate Financial Reporting:</b> This course focuses on areas of financial reporting where managers have considerable discretion including: pensions, leases, equity securities, earnings, dilution, employee stock options and deferred taxes. The dynamics between auditors, managers, and financial analysts will also be discussed.</p> <p><b>Financial Statement Analysis:</b> Analysis of financial statements and the accompanying footnotes. How various accounting methods might affect interpretation and use of financial information.</p>



## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
Not Ranked	13	Columbia University Columbia Business School	<a href="https://www8.gsb.columbia.edu/programs-admissions/">https://www8.gsb.columbia.edu/programs-admissions/</a>	<p><b>MBA:</b>                      Financial Accounting                      Financial Planning and Analysis (E)                      Earnings Quality &amp; Fundamental Analysis (E)                      Financial Statement Analysis and Valuation (E)</p>	<p><b>Financial Accounting:</b> This course examines the generally accepted accounting principles (GAAP) underlying the financial statements, their implementation in practice and the role of the independent auditors. Note is also made of the limitations of financial reports, their evolution in response to changing business conditions, current accounting controversies and the constraints that limit the freedom and influence the course of action of rule makers and regulators. The perspective and main focus are not those of the accountants who prepare financial reports, but rather those of the users of the information contained in them: mostly investors and the financial analysts who serve them, creditors and, to some extent, management.</p> <p><b>Financial Planning and Analysis:</b> This course introduces students to modern tools and techniques designed to generate performance measures used for decision-making, management and control purposes. Accounting based performance measures are used for a variety of managerial decisions such as product pricing, and profitability analysis (e.g., activity-based costing for customer lifetime value). This course further illustrates how performance measures are integrated into incentive systems so as to align the objectives of (division) managers with those of the shareholders. Key building blocks of such incentive systems are cost allocations, transfer pricing and compensation schemes. At a time where performance measurement is one of the fastest-growth areas for consulting firms, this course illustrates the strengths and weaknesses of commonly-used performance metrics, e.g., Economic Value Added (EVA), Balanced Scorecard. It serves as an important background for a variety of electives in management and accounting as well as for consulting-related courses.</p> <p><b>Earnings Quality &amp; Fundamental Analysis:</b> Financial reporting provides a window into the operational and financial workings of a company. However, translating this information into actionable insights is anything but straightforward. It requires an understanding of Generally Accepted Accounting Principles (GAAP), the quality of financial information, and the adjustments and analyses required to accurately measure and evaluate profitability, risk, growth prospects, and value. This course is devoted to a systematic study of these topics. In addition to discussing GAAP, we will analyze many actual financial disclosures and cases of accounting abuses. We will also cover standard and not-so-standard financial analysis techniques, and incorporate insights from practitioner and academic research. The primary objective is to acquire a deep understanding of accounting information and how to intelligently use it in making investment, credit, and similar resource allocation decisions. Such knowledge is required of executives, bankers, analysts, investment managers, and other users of financial information.</p> <p>Financial Statement Analysis and Valuation:</p>
13	15	Indiana University Kelley School of Business	<a href="https://kelley.iu.edu/programs/">https://kelley.iu.edu/programs/</a>	<p><b>Undergrad:</b>                      Basic Accounting Skills                      Introduction to Financial Accounting                      Introduction to Managerial Accounting                      Intermediate Accounting (E)                      Advanced Financial Accounting (E)                      Cost Management (E) or Cost Accounting (E)</p> <p><b>MBA:</b>                      Selected Topics in Financial Accounting                      Financial Accounting Concepts                      Introduction to Financial Statement Analysis and Valuation                      Strategic Cost Management</p>	<p><b>Basic Accounting Skills:</b> Presents information including (1) financial accounting, (2) auditing and assurance, (3) management accounting, and (4) tax accounting. Includes current real-world examples taken from the popular business press. Provides students with the foundation necessary for higher-level accounting courses.</p> <p><b>Introduction to Financial Accounting:</b> Provides balanced coverage of the mechanics, measurement theory, and economic context of financial accounting. Strikes a balance between a preparer's and a user's orientation, emphasizing that students must understand both how transactions lead to financial statements (preparer's orientation) and how one can infer transactions given a set of financial statements (user's orientation). Relies on current, real-world examples taken from the popular business press. First part of the course introduces students to the financial accounting environment, financial statements, the accounting cycle, and the theoretical framework of accounting measurement. Second part of the course covers the elements of financial statements, emphasizing mechanics, measurement theory, and the economic environment.</p> <p><b>Introduction to Managerial Accounting:</b> Concepts and issues associated with the accounting and management of business; particular emphasis is given to understanding the role of accounting in product costing, strategic decisions, costing for quality, cost-justifying investment decisions, and performance evaluation and control of human behavior.</p> <p><b>Selected Topics in Financial Accounting:</b> Financial Accounting focuses on the process by which firms report economic information to users outside the firm (e.g., stockholders, potential investors, creditors, regulatory agencies, etc.). This course is a continuation and expansion of the financial accounting material that was covered in the MBA core, and the format of this course will be quite similar to the MBA core course. Although there is significant emphasis on applications and analysis in the course, we also include some coverage of detailed "accounting rules" since this knowledge is crucial in understanding firms' financial reporting. As a result of this course, you should be better able to read, interpret, and analyze financial statement information.</p> <p><b>Financial Accounting Concepts:</b> Designed to provide a framework of concepts and procedures essential for the preparation of general purpose financial statements directed toward external users (e.g., stockholders, potential investors, creditors, regulatory agencies, etc.). The topics listed below are among the most important, interesting, complex, and controversial in the accounting discipline. A serious effort will be required to achieve technical and conceptual competence in these areas. Many of these topics appear regularly on the CPA and CFA exams.</p> <p><b>Introduction to Financial Statement Analysis and Valuation:</b> The purpose of the course is to provide students with tools to analyze and exploit information in corporate financial statements. The course will emphasize how accounting numbers measure and reflect the economic consequences of firms' strategies, and how students can analyze financial statements to gain insights into firms' strategic decisions.</p> <p><b>Strategic Cost Management:</b> The course focuses on three principal tools in strategic cost analysis: strategic positioning analysis, value chain analysis, and cost driver analysis (activity-based costing). Strategic positioning analysis investigates the role of cost management and other management accounting tools in a firm's competitive strategy. Value chain analysis delineates the linked set of activities needed to make and deliver a product or service, focusing on whether activities provide value to customers. Cost driver analysis examines the costs related to the activities making up the value chain.</p>

## An Interactive Learning Approach to Accounting Classes

2013 Rank (Undergrad)	2012 Rank (Grad)	School Name	Source	Accounting courses in Management Programs	Table of contents
14	16	New York University Stern School of Business	<a href="http://www.stern.nyu.edu/programs-admissions/index.htm">http://www.stern.nyu.edu/programs-admissions/index.htm</a>	<p><b>Undergrad in Business:</b> Principles of Financial Accounting Principles of Managerial Accounting</p> <p><b>MBA:</b> Financial Accounting &amp; Reporting Accounting for Mergers, Acquisitions and Related Matters (E) An Integrated Approach to Financial Statement Analysis (E) Financial Planning and Analysis (E) International Accounting and Financial Statement Analysis (E) Financial Reporting and Disclosure (E)</p>	<p><b>Accounting for Mergers, Acquisitions and Related Matters:</b> This course focuses on four major issues in financial reporting; accounting for mergers and acquisitions, preparation of consolidated financial statements, the translation of foreign currency financial statements and foreign currency transactions, and accounting for derivatives including the use of derivatives in hedging transactions. This course is recommended for both accounting and finance majors.</p> <p><b>An Integrated Approach to Financial Statement Analysis:</b> This course describes financial reporting objectives and methods used by corporations. Focuses on the analysis of the information in corporate financial statements, including the impact of alternative accounting procedures and assumptions. Offers ways to adjust for selected reporting differences. Discusses applications using cross-sectional and time series analysis. Case studies (including firms with international operations), computer databases, and computer-based assignments may be used. An understanding of basic financial concepts is recommended.</p> <p><b>Financial Planning and Analysis:</b> This is a full-semester introductory course in the financial planning and analysis (FPA, a.k.a. managerial accounting). The first half of the course develops a set of tools for measuring profitability by product, customer, etc. The second half applies these concepts to determine the performance of business units - and of the managers running those - in decentralized firms. No prior knowledge of the material is required or even expected. The following specific topics will be covered: Product costing for decision making; Activity-based costing (ABC) and profitability analysis; Budgeting and variances; Decentralization and transfer pricing; Performance evaluation and compensation for managers of profit centers; Performance evaluation and compensation for managers of investment centers; The "War of Metrics": Cash Flow, EVA, Balanced Scorecard, etc</p> <p><b>International Accounting and Financial Statement Analysis:</b> This course focuses on policy issues of foreign currency translation, global inflation, transnational reporting and disclosure, and international accounting and auditing standards. Financial statements of multinational and foreign firms are used for financial statement analysis. May include case studies, computer-based assignments, and research projects.</p> <p><b>Financial Reporting and Disclosure:</b> This course uses tools learned in Financial Accounting and Reporting, such as ratio and accounting analysis, to discuss, in-depth, financial reporting principles, emphasizing the link between the reporting principles and the financial statements. Students learn how management uses financial reporting decisions to influence reported income and asset and liability values, and they gain the tools necessary to analyze the impacts of alternative reporting decisions on financial statements. It is ideal for students who wish to pursue careers in investment banking, investment management, and consulting as well as public accounting. In addition to being a required course for the CPA-track, it is a highly recommended course for students in finance, economics, marketing, and information systems.</p>

## An Interactive Learning Approach to Accounting Classes

### In Europe<sup>6</sup>:

Rank 2013	Business School	Country	Source	Accounting courses in Management Programs	Table of contents
1	HEC Paris	France	<a href="http://www.hec.edu/MSc/Programs/Master-in-Management-MiM-Grande-Ecole/Program-Structure">http://www.hec.edu/MSc/Programs/Master-in-Management-MiM-Grande-Ecole/Program-Structure</a>	<b>Master in Management:</b> Financial Accounting Management Accounting Performance Management & Measurement <b>MBA:</b> Financial Accounting Managerial Accounting and Control	<p><b>Accounting:</b> This course is designed to help students gain an in-depth knowledge of the accounting and financial information produced by single companies or groups (consolidated accounts); this information may be produced within the framework of the company's everyday operations (annual accounts) or during specific financial operations (increase in capital, mergers, takeover bids, public offers of exchange, etc.).</p> <p><b>Methods of Cost Analysis:</b> Methods of Cost Analysis is a core course of management methods. It is aimed to provide HEC students with a set of tools and reasoning skills that will help them, in their professional life, to analyze problems associated with decision making.</p> <p><b>Performance Measure and Management:</b> The course introduces students to the main concepts and instruments of performance measurement and management. The basic questions that will be discussed throughout the ten sessions are: How should the performance of managers, departments, or divisions within an organisation be measured? What accounting and control tools can organizations use so as to ensure that high performance is achieved? The course builds upon the financial accounting and cost accounting courses that students will have previously completed.</p>
1	IE Business School	Spain	<a href="http://www.ie.edu/business-school/degrees">http://www.ie.edu/business-school/degrees</a>	<b>Master in Management:</b> Financial Accounting Management Accounting <b>MBA:</b> Financial Accounting Managerial Decision Making Managerial Accounting	<p><b>Financial Accounting:</b> The course focuses on how to record economic events in the accounting records and how to prepare and interpret the primary financial statements that summarize a firm's economic transactions.</p> <p><b>Management Accounting:</b> This course emphasizes the use of accounting information for internal planning and control purposes, as opposed to the external disclosure focus of financial accounting.</p>
3	London Business School	UK	<a href="https://www.london.edu/programmes/msc/programmedetails.html">https://www.london.edu/programmes/msc/programmedetails.html</a>	<b>Master in Management:</b> Financial Accounting Introduction to Management Accounting <b>MBA:</b> Financial Accounting Management Accounting	<p><b>Financial Accounting:</b> The purpose of the Financial Accounting course is to provide you with an understanding of the financial reporting process, with a particular emphasis on how financial statements are put together. In addition, you will also be equipped with the capability to analyse and interpret company financial statements.</p> <p><b>Introduction to Management Accounting:</b> Whilst management accounting concepts are typically used by more senior managers in companies, this shorter course provides you with a flavour of management accounting to aid your future development and assist you when interviewing for jobs.</p> <p><b>Management Accounting:</b> The purpose of this course is to examine management accounting systems, and their use in decision-making, planning and control, and performance evaluation. The course will cover the vocabulary and mechanics of cost accounting, basic issues involved in the design of management accounting systems, and the role of management accounting in resource allocation and incentives.</p>
3	Esade Business School	Spain	<a href="http://www.esade.edu/programas-esade">http://www.esade.edu/programas-esade</a>	<b>Undergrad:</b> Accounting and Financial Analysis I Accounting and Financial Analysis II Accounting and Financial Analysis III <b>MBA:</b> Financial Accounting Management Control Systems	<p><b>Accounting and Financial Analysis I:</b> This subject will enable you to gain a first insight into the real economic-financial business situation. It introduces basic concepts for drafting financial business statements, based on accounting events or simple situations often based on real personal situations, which facilitates understanding. Once this subject has been completed, the foundations will have been laid for studying more complex situations that can modify financial statements, and for studying their later analysis and decision-making.</p> <p><b>Accounting and Financial Analysis II:</b> In this subject, you will consolidate and broaden your knowledge in relation to making financial statements for a company. This course is based on the basic knowledge acquired in Accounting and Financial Analysis I, and includes analysis of economic-financial business realities. It is more advanced in terms of the complexity of the situations it presents and how they affect the company's financial statements, and it puts special emphasis on product evaluation and cost calculation.</p> <p>Once this subject has been completed, the foundations will have been laid for understanding any situation that modifies a company's financial statements, and you will know how to reflect this in them.</p> <p><b>Accounting and Financial Analysis III:</b> This subject will provide you with knowledge on projection and the analytical use of the principles and techniques of setting up accounting records to determine: a company's assets, financial and economic situation using its balance sheet and income statement; the statement of changes in equity, fundamental balance sheet aggregates, and the company's profitability indicators.</p> <p><b>Financial Accounting:</b> A guide to corporate accounts for business leaders, focused on using financial information as a tool to aid decision-making.</p>

<sup>6</sup> Top Business Schools in Europe in 2013, according to the Financial Times ranking, available in <http://rankings.ft.com/businessschoolrankings/european-business-school-rankings-2013>. Accessed in April 15<sup>th</sup>, 2014.

## An Interactive Learning Approach to Accounting Classes

Rank 2013	Business School	Country	Source	Accounting courses in Management Programs	Table of contents
5	Insead	France	<a href="http://www.insead.edu/facultyresearch/areas/accounting/courses/mba.cfm">http://www.insead.edu/facultyresearch/areas/accounting/courses/mba.cfm</a>	<b>MBA:</b> Financial Accounting (M) Managerial Accounting (M) Applied Corporate Reporting (E) Financial Statement Analysis (E) Strategic Cost Management (E)	<p><b>Financial Accounting:</b> Financial accounting is concerned with reporting a company's financial position, operating results, and cash flows to investors, creditors, and other economic decision-makers. However, many people see accounting as a mass of detail that conveys little or no information about how well a company is really doing. This course attempts to dispel that misconception by illuminating an often confusing and intimidating subject. Although it is true that accounting information sometimes obscures more than it enlightens, there is much that is useful (and even essential) to those interested in making rational investment and credit-granting decisions. This course will help you to understand how information is accumulated and reported in financial statements. Particular emphasis will be given to how managers manipulate accounts, and what the reader of financial statements can do about it. By the end of the course you should know enough of the concepts, terminology, and techniques of financial accounting to analyze an annual report and understand the relationship between accounting numbers and corporate valuation.</p> <p><b>Managerial Accounting:</b> This course explores the use of accounting information for internal planning, decision-making, and performance evaluation. The main objective of the course is to equip you with the knowledge to understand, evaluate, and act upon the many financial and non-financial reports used in managing modern firms. A firm's managerial-accounting system serves two fundamental purposes. First, managing the modern firm requires financial and non-financial information about the firm's products, processes, assets and customers. This information is a key input into a wide range of analytical tools to support decisions: analyzing profitability of customers, making operational and strategic decisions, evaluating investments, investigating efficiency, and so on. Second, modern economic complexity requires that owners or top managers of a firm delegate the rights to make critical business decisions to managers at all levels of the firm. The firm's information system plays a key role in providing incentives to these managers and evaluating their performance.</p> <p>The focus of this course is on two central objectives of internal accounting systems. Along the way, we will discover that many companies have not provided their managers with useful information. These managers have to rely on information systems designed years ago for very different business processes and with very different technologies. We will take a look at a number of pitfalls that these systems can induce and the dangers in using them to make business decisions. We will also investigate some modern ideas in how an organization's information system should be designed. To attain the right level of understanding, you will need to be familiar with the mechanics of the many techniques used to prepare management reports. But the emphasis in this course is very much on interpretation, evaluation, and decision making.</p>
6	Iese Business School	Spain	<a href="http://www.iese.edu/en/mba/program-structure/">http://www.iese.edu/en/mba/program-structure/</a>	<b>MBA:</b> Financial Accounting Managerial Accounting	<p><b>Financial Accounting:</b> This course presents the concepts and procedures used in accounting to support financial decision making. It first studies the main financial statements (balance sheet, income statement and cash flow statement) and their interrelationships, then analyzes in detail the key accounts in them, and finally shows how useful information about a company can be extracted from the financial statements.</p> <p><b>Managerial Accounting:</b> In the Managerial Accounting course -once we have seen and understood what we want cost information for- we explore ways in which such information is to be gathered, accumulated, and presented in order to serve that fundamental purpose: To help make decisions. Students learn how cost systems are designed and how to measure the cost of the resources consumed in performing the organizations significant activities. This course also covers the basic concepts of planning, directing and controlling an organizations operations. Students are exposed to budgets and the budgeting process: how to prepare them and how to compare actual results incurred with those specified in the budget. Variance analysis and management by exception are covered in detail. Basic concepts of management control are also introduced, even though this topic is covered in detail in an elective second year course.</p>
7	University of St Gallen	Switzerland	<a href="http://www.unisg.ch/en/Studium">http://www.unisg.ch/en/Studium</a>	<b>Bachelor in BA:</b> Financial and Management Accounting <b>MBA:</b> Accounting and Controlling	
8	SDA Bocconi	Italy	<a href="http://www.sdabocconi.it/en/mba-executive-mba/full-time-mba/program/core-courses-and-seminars/#content">http://www.sdabocconi.it/en/mba-executive-mba/full-time-mba/program/core-courses-and-seminars/#content</a>	<b>MBA:</b> Financial Reporting and Analysis Cost Management & Profitability Analysis Performance Management & Control	
9	IMD	Switzerland	<a href="http://www.imd.org/programs/mba/programstructure/Class-subjects.cfm">http://www.imd.org/programs/mba/programstructure/Class-subjects.cfm</a>	<b>MBA:</b> Accounting Financial Statement Analysis (E)	<p><b>Accounting:</b> Interpret accounting data, recognize its limitations &amp; read a set of accounts with confidence.</p>

## An Interactive Learning Approach to Accounting Classes

Rank 2013	Business School	Country	Source	Accounting courses in Management Programs	Table of contents
10	Rotterdam School of Management, Erasmus University	Netherlands	<a href="http://www.rsm.nl/home/">http://www.rsm.nl/home/</a>	<b>Bachelor in BA:</b> Foundations of Finance & Accounting Management Accounting Financial Accounting <b>Master in Management:</b> Accounting <b>MBA:</b> Managerial Accounting	<b>Accounting:</b> Referred to as the language of business, accounting is the means by which all business activities can be measured. The course covers the fundamentals of accounting and explains the various ways financial and non-financial information is collected and communicated to decision makers. The differences between management accounting (used to aid in internal planning and control) and financial accounting (designed primarily to assist investors and creditors) are explored. <b>Managerial Accounting:</b> The course is focused on managerial accounting with an emphasis on planning, co-ordinating, controlling and decision making. Its objective is to make you, the manager, a more effective decision maker. To this end, the course is concerned with relevant accounting data collection, processing, interpretation and usage. Management accounting's strength is in its flexibility and its specificity to the program at hand. The underlying theme of "different costs for different purposes" will prevail.
11	ESCP Europe	France / UK / Germany / Spain / Italy	<a href="http://www.escpeurope.eu/">http://www.escpeurope.eu/</a>	<b>Master in Management:</b> Accounting Management Control	
12	University of Oxford: Saïd	UK	<a href="http://www.sbs.ox.ac.uk/programmes/degrees/mba/programme-outline/core-courses">http://www.sbs.ox.ac.uk/programmes/degrees/mba/programme-outline/core-courses</a>	<b>MBA:</b> Financial Reporting	<b>Financial Reporting:</b> Financial reporting will provide you with an understanding of how modern financial reporting practices are supposed to function theoretically from technical and institutional viewpoints, and evaluates how and to what extent the roles of financial reporting are achieved in practice. The course also explores - recent developments of reporting, - disclosure discourses - and will prepare you for future changes in a fast-changing, global and socially-conscious business environment. Financial reporting is taught by Richard Barker. Barker is best known for his intuitive explanation of accounting, by which he applies underlying concepts to simplify and clarify the diversity and complexity of accounting practice.
13	EM Lyon Business School	France	<a href="http://graduate.em-lyon.com/en/International-MBA/international-mba-programme/programme-structure">http://graduate.em-lyon.com/en/International-MBA/international-mba-programme/programme-structure</a>	<b>MBA:</b> Financial Accounting Cost for Decisions (E)	
14	Essec Business School	France	<a href="http://www.essec.edu/programs/mba-programs/global-mba/program/content.html">http://www.essec.edu/programs/mba-programs/global-mba/program/content.html</a>	<b>MBA:</b> Financial and Reporting Control and Performance	
15	Vlerick Business School	Belgium	<a href="https://www.vlerick.com/en/programmes">https://www.vlerick.com/en/programmes</a>	<b>MBA:</b> Understanding Accounting Principles II Concepts & Techniques in Financial Management Measuring & Tracking Business Performance <b>MSc in Financial Management:</b> Financial Accounting Cost Accounting	<b>Understanding Accounting Principles II:</b> Unlock the power of financial accounting to get a general understanding of the financial reporting process, with special reference to preparing and analysing financial statements – balance sheets, income statements, statements of changes in equity and cash flow statements. Through lectures and case studies you obtain an understanding of the accounting function, key accounting concepts and decision making based on financial accounting information. <b>Concepts &amp; Techniques in Financial Management:</b> Practically every decision taken by a business has financial implications. This course will provide you with insights into how the financial health of a company should be evaluated, how different investment and financing decisions interact, and how the objectives of a business are to be achieved. By way of lectures, case studies, the FAST simulation game and a project, you are inspired to apply fundamental concepts and tools in corporate finance to the business world. <b>Measuring &amp; Tracking Business Performance:</b> Examine the managerial issues encountered in the design and use of management accounting and control systems – the building blocks for improving corporate performance. The course will focus on the costing, performance measurement and reporting tools that provide executives with relevant information to manage their businesses for lasting success. <b>Financial Accounting &amp; Financial Statement Analysis:</b> Understand how to read and interpret financial statements under IFRS (e.g. balance sheets, income statements, stockholder equity statements and cash flow statements). This course gives will discuss the ways in which accounting choices can affect financial reporting and decision making using financial accounting information. Go beyond basic accounting techniques and explore the links between accounting, corporate finance and market finance. We also identify and discuss relevant accounting trends. <b>Cost Accounting:</b> Cost Accounting introduces you to the vital role of management accounting information in today's organisations. It considers the design of cost accounting systems and elaborates on the differences between traditional and Activity Based Costing systems. In addition, concepts like Time Driven Activity Based Costing, Activity Based Budgeting, Customer Profitability Analysis, Total Cost of Ownership and Theory of Constraints are discussed.

## An Interactive Learning Approach to Accounting Classes

Rank 2013	Business School	Country	Source	Accounting courses in Management Programs	Table of contents
16	Imperial College Business School	UK	<a href="http://www.imperial.ac.uk/business-school/programmes/">http://www.imperial.ac.uk/business-school/programmes/</a>	<p><b>MSc:</b> Accounting and Corporate Reporting Analysis</p> <p><b>MBA:</b> Accounting and valuing a Business</p>	<p><b>Accounting and Corporate Reporting Analysis:</b> This course contributes to your development of managerial potential by explaining the techniques of financial and management accounting and examining their relevance to the broader issues of management evaluation and decision-making in the generic manufacturing and service sectors. During the course you develop the ability to: distinguish between the different users of accounting data and their informational requirements, including information about Corporate Social Responsibility and Governance, and Business Sustainability; identify the uses and shortcomings of published financial accounts and command a basic knowledge of the underlying accounting information system; evaluate the costing principles underlying the classification and processing of cost accounting data; distinguish between the informational requirements of short-run and long-run financial decision techniques, and appreciate the contribution of management accounting data to the satisfaction of these requirements; specify the organisational context of management accounting, and evaluate strengths and limitations of management accounting data in improving organisational effectiveness. By the end of this course you'll be able to: read and make sense of companies' annual reports and other published corporate material; evaluate the financial situation, performance and potential of an organisation using ratio and strategic analyses and interpretation of the annual report and other published corporate material, referring also to the company's impact on its environment; design budget processes and produce simple projected cash budgets; devise and apply appropriate techniques to the solution of simple short and long-run financial decision problems by selecting and utilising relevant information.</p> <p><b>Accounting and valuing a Business</b> This course looks at the fundamentals of accounting and their application to real business situations. It will also address financial accounting and the complex challenges of determining value in a firm.</p>
17	Edhec Business School	France	<a href="http://www.edhec-business-school.com/programmes/degree-programmes/original-and-varied-academic-programmes-43990.kjsp?RH=WWWE DHECEDU">http://www.edhec-business-school.com/programmes/degree-programmes/original-and-varied-academic-programmes-43990.kjsp?RH=WWWE DHECEDU</a>	<p><b>Master in Management:</b> Cost Accounting &amp; Management Control</p> <p><b>MBA:</b> Financial and Management Accounting</p>	<p><b>Cost Accounting and Management Control:</b> The course is designed for future managers who need to understand what cost information is most relevant for making specific decisions and how that information should be used. It aims to explain how financial and nonfinancial information can be used to support the three main managerial functions: planning actions, directing individuals and teams, and evaluating performance.</p> <p><b>Financial and Management Accounting:</b> This course provides an introduction to financial and managerial accounting. The financial accounting module objectives include helping you better understand important concepts that underlie corporate financial statements and to develop the skills needed to analyze and interpret financial statements effectively. The managerial accounting module (e.g. strategic cost analysis) focuses on using accounting information in order to make internal decisions. The module objective is to help you be more effective in using management accounting information to increase your competitive advantage.</p>
18	City University: Cass	UK	<a href="https://www.cass.city.ac.uk/courses">https://www.cass.city.ac.uk/courses</a>	<p><b>Undergrad in Management:</b> Introduction to Management Accounting for Business Introduction to Financial Accounting for Business Management Accounting for Business</p> <p><b>MSc in Management:</b> Accounting</p> <p><b>MBA:</b> Accounting and Financial Reporting Accounting and Financial Analysis (E)</p>	<p><b>Accounting:</b> A sound understanding of accounting and financial principles and practices is an essential component of the range of skills an effective manager needs in a modern organisation. This module will equip students with an understanding of the most common accounting practices and also provide them with an understanding of the principles of finance and the valuation of financial instruments.</p> <p><b>Accounting and Financial Reporting:</b> This module is structured to give you a solid understanding of the principles and practices of financial reporting. You will also develop your critical abilities in evaluating this information. Learning outcomes: understanding key financial statements; constructing basic financial statements; critically evaluating accounting decisions; evaluating company performance through financial statements; using financial data in decision making.</p> <p><b>Accounting and Financial Analysis:</b> Develop your ability to analyse financial statements and make forecasts about future performance. Learning outcomes: ability to analyse financial statements; understand forecasting future performance; understand how to assess the impact of Mergers &amp; Acquisitions activity on financial statements and subsequent performance.</p>
19	Cranfield School of Management	UK	<a href="http://www.som.cranfield.ac.uk/som/p9270/Programmes-and-Executive-Development">http://www.som.cranfield.ac.uk/som/p9270/Programmes-and-Executive-Development</a>	<p><b>Masters in Finance and Management:</b> Accounting Strategic Management Accounting and Control</p> <p><b>MBA:</b> Accounting</p>	<p><b>Accounting:</b> The module provides you with a very clear understanding of the basics of accounting. By the end of the course, you will be able to interpret accounting information with confidence and be able to use it to make decisions and to communicate with others.</p> <p><b>Strategic Management Accounting and Control:</b> This module will examine what is meant by organisational performance and the theories of control, performance measurement and management. It will encourage you to consider the applications of direction setting and management control systems, why organisations measure, how performance measures set direction and how performance is delivered.</p> <p><b>Accounting:</b> The module looks at both financial and management accounting. You will be provided with a thorough understanding of company accounts, how they are construed and how to interpret them. Further to this, you will look at and understand the key issues in management accounting from the point of view of business leaders needing to make practical decisions in their organisation. As a result of this module, you will be able to: demonstrate a systematic understanding of the fundamental principles of financial accounting; describe how subsidiary accounts are consolidated; prepare key financial statements from basic information; analyse and interpret company accounts; classify different types of costs and conduct break even analysis; prepare budgets and interpret variances from budget; evaluate divisional performance and different transfer pricing methods.</p>
20	Tilburg University, TiasNimbas	Netherlands	<a href="http://www.tiasnimbas.edu/ManagementProgrammes/pgelid=875">http://www.tiasnimbas.edu/ManagementProgrammes/pgelid=875</a>	<p><b>MBA:</b> Financial Accounting Managerial Accounting Management Control</p>	

## An Interactive Learning Approach to Accounting Classes

Rank 2013	Business School	Country	Source	Accounting courses in Management Programs	Table of contents
21	WHU Beisheim	Germany	<a href="http://www.whu.edu/en/programs/">http://www.whu.edu/en/programs/</a>	<p><b>Bachelor in International Business Administration:</b> Financial Accounting Management Accounting and Control</p> <p><b>Master in Management:</b> Accounting &amp; Financial Management</p> <p><b>MBA:</b> Financial Accounting Managerial Accounting Advanced Finance and Accounting (E)</p>	<p><b>Accounting &amp; Financial Management:</b> Accounting and Financial Management are the backbone of management and the language of business. Specializing in this area will equip you with critical skills relevant for a broad range of potential career paths. You will acquire advanced knowledge in Financial Accounting, Management Accounting and Control, as well as Corporate Taxation. More specifically, you can either focus on Financial Accounting or select a broader set of classes covering all relevant aspects of Accounting and Financial Management as an optimal foundation for a career in the Corporate Finance Function. The concentration addresses the significant transformation in the role of the CFO to strategic counterpart of the CEO, and – last not least – the excellent career prospects that await managers in the area of accounting and controlling.</p>
21	Stockholm School of Economics	Sweden / Russia / Latvia	<a href="http://www.hhs.se/Education/Pages/default.aspx">http://www.hhs.se/Education/Pages/default.aspx</a>	<p><b>Master in Finance and Accounting:</b> Financial accounting Management control Financial Accounting from a Preparer Perspective</p> <p><b>MBA:</b> Financial Accounting and Analysis Management Accounting</p>	<p><b>Financial Accounting:</b> Demonstrate the ability to, also for new applications, 1) identify relevant alternative accounting methods, 2) calculate their effects on financial statements and 3) link an analysis of the effects to the rationales of the respective methods, in the following main areas: accrual accounting/cash accounting, consolidation, alternative concepts of value and profit, financing/obligations of the firm. Content: International Accounting Practices. The conceptual framework of financial reporting. Financial statement presentation. Consolidation. Business combinations. Foreign subsidiaries. Step-wise acquisitions and disposals. Historical Cost Accounting (HCA). Present Value Accounting (PVA). Selling Price Accounting (SPA). Replacement Cost Accounting (RCA). Fair value measurement. Revenue recognition. Multi-element arrangements. Long-term contracts. Depreciation methods. Intangible assets. Financial instruments. Hedging. Credit losses. Liabilities. Off-balance sheet items. Share-based payment. Instruments with characteristics of both debt and equity.</p> <p><b>Management control:</b> The student should after the course succeed to: qualitatively describe and critically evaluate management control frameworks as well as apply them in solving company problems; qualitatively describe and critically evaluate management control techniques as well as apply them in solving company problems; describe and analyse a real-life company's management control systems. The course consists of four parts. Part I deals with management control frameworks and techniques for controlling for shareholder value. This includes the general management control framework by Otley (1999); objectives, measures, targets, rewards and frequency in providing feedback. It also includes a guest lecture by Ratos, a well known private equity company. Part II deals with controlling for strategic uncertainties and creating dynamic tensions. Here the well-known levers of control framework (Simons 1995), will be discussed and the students will use the framework to analyse Harvard cases as well as to analyse a real-life company's management control system in the project assignment. Part III deals with management control frameworks and techniques for start-up companies. This part also includes a guest lecture. Finally, part IV concerns management control and inter-organisational relationships, that is cooperation between companies. This part also includes the importance of inter-organisational innovation and the use of management control to enable such innovation.</p> <p><b>Financial accounting from a preparer's perspective:</b> To develop an ability to: read and understand IFRS and the IASB conceptual framework as an integrated structure; analyze business transactions and other events from an IFRS perspective; provide required financial statement information (i.e. account for the relevant transactions and events in accordance with IFRS).</p>
23	Mannheim Business School	Germany	<a href="http://www.mannheim-business-school.com/programs.html">http://www.mannheim-business-school.com/programs.html</a>	<p><b>BSc in Business Administration:</b> Introduction to Financial Accounting Management Accounting Financial Accounting and Business Taxation International Financial Accounting and Business Taxation</p> <p><b>MBA:</b> Fundamentals of Financial Accounting Managerial Accounting</p>	
23	HHL Leipzig Graduate School of Management	Germany	<a href="http://www.hhl.de/en/programs/hhl-programs/">http://www.hhl.de/en/programs/hhl-programs/</a>	<p><b>MSc in Management:</b> Managerial &amp; International Financial Reporting Advanced International Financial Reporting (E) Consolidated Financial Statements (E) Financial Analysis (E)</p> <p><b>MBA:</b> Accounting for Businesses Advanced Accounting (E)</p>	

## An Interactive Learning Approach to Accounting Classes

Rank 2013	Business School	Country	Source	Accounting courses in Management Programs	Table of contents
25	Eada Business School Barcelona	Spain	<a href="http://www.eada.edu/en/programmes">http://www.eada.edu/en/programmes</a>	<b>International Master in Management:</b> Finance and Accounting: Fundamentals for managers Strategic Accounting and Decision Making (E) <b>MBA:</b> Business Analysis and Planning Financial Decision Making Management Control	<p><b>Finance and Accounting - fundamentals for managers:</b> Participants are given a detailed insight into the principles of accounting and financial reporting. Emphasis is placed on the application of international financial standards, establishing the effects on financial statements, the balance sheet and the profit and loss account. The study of key accounting measurement techniques and ratios enables the participant to prepare and analyse financial statements. The objective of this course is to help participants develop managerial abilities through a comprehensive understanding and discussion of fundamental concepts and techniques in financial and management accounting and financial management.</p> <p><b>Business Analysis and Planning:</b> In this course, participants acquire the capacity to assimilate financial information and propose business recommendations based on the analysis of the company's financial statements. Factors such as profitability, cash flow, use of debt and liquidity, etc., are studied, providing the basis for such recommendations. Participants will learn to understand the processes of financial and business analysis as well as the financial environment within which management must operate.</p> <p><b>Financial Decision Making:</b> This course will cover managerial concepts and techniques for Product and Service Costing, Planning and Control, as well as Investment Decisions. Modern management accounting is not only concerned with how cost data are transformed in to cost accounting information, but more importantly, how to use cost accounting information to aid managerial goals. The course also aims to provide participants with tools for analysing the viability of investments to decide whether it is convenient to go ahead with them or not. We will study investment selection methods as well as certain aspects which are involved in their analysis, such as risk, the taxation factor, working capital needs, etc.</p> <p><b>Management Control:</b> Organisation use management control to relate long-term Strategic Planning developed by high-level management with short-term activities carried out at operational levels. In this course, participants will become familiar with tools for carrying out the evaluation, control and rewarding of people with managerial responsibilities. They will learn to see planning as a tool to establish, evaluate and transmit the medium and long-term objectives of the organisation.</p>
25	Católica Lisbon School of Business and Economics	Portugal	<a href="http://www.clsbe.lisboa.ucp.pt/site/custom/template/fceetplhome.asp?sspageid=1&amp;lang=2">http://www.clsbe.lisboa.ucp.pt/site/custom/template/fceetplhome.asp?sspageid=1&amp;lang=2</a>	<b>Undergrad in Business Administration:</b> Financial Accounting I Financial Accounting II Cost Accounting Management Control Systems <b>MSc in Management:</b> Accounting Management Control Systems <b>MBA:</b> Financial Accounting Management Control Systems	<p><b>Financial Accounting I:</b>                      Objectives: To understand the importance of accounting as a fundamental tool in managerial analysis of firm's performance; The importance of a standard is highlighted and the new accounting framework will be used, where national and international norms cohabit will be presented; The fundamental concepts of accounting are presented - the method of accounting information registration and the construction and connection of the main financial statements.</p> <p><b>Financial Accounting II:</b>                      Objectives: Further development of accounting skills; Learning of how to make a financial analysis; Analysis of financial reports of real companies.</p> <p><b>Cost Accounting:</b>                      The objective of this course is to provide the fundamentals in costing. The best way to understand what we are dealing with here is to consider the distance between the prices charged on the market and cost of delivering products and services. The higher this distance, the more profitable will a company be. While the price is determined by the demand forces on the market, the cost is determined by the supply side on the company's internal conditions. Costing is the technique that provides the companies with a clear understanding of what can be done to measure, and increase the distance between price and cost.</p> <p><b>Management Control Systems:</b>                      Description: Decision Making and Cost Behaviour; Budgeting and Responsibility Accounting; Pricing Decisions and Transfer Pricing; Evaluating the success of Strategy and the performance evaluation (the "Balanced Scorecard"). The course will run in one theoretical class and two practical weekly classes, with 1h30m each. A detailed schedule will be presented to students at the beginning of the course.</p>



## An Interactive Learning Approach to Accounting Classes

### Annex 4 – Survey’s Cover Letter sent to Accounting Professors

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Dear Prof. «Professor»,

My name is Jorge Carvalheiro, I am a recent MBA Graduate and I am doing a Master Dissertation about the use of interactive learning tools in accounting classes, more specifically computer-based simulation tools (definition below). I found already some very interesting experiences and papers, some of them dated from the 1960’s! I am now conducting a survey among accounting professors from leading business schools in the United States of America and Europe.

I know that you are a distinct member of the «Department» Department at «School» and, in this sense, I would very much appreciate if you could dedicate 3 minutes of your time, until the end of next week (April 25th), to help me in my master thesis.

The link to the survey, which is anonymous and has only 4 questions, is the following:  
<https://www.surveymonkey.com/s/ZMZ5SLQ>

Alternatively, if you prefer you can reply directly to this e-mail, answering to the following questions:

- Do you use computer-based simulations in your classes? (If the answer is Yes, please specify its name)
- If the answer to the previous question is No,
  - o Why not?
  - o Are you willing to try a computer-based simulation tool in your classes, at least once?
- What do/would you consider most valuable in an accounting simulator?

#### Definition of simulation:

*“There are countless ways to define a simulation. Simulation is a realistic, controlled-risk environment where learners can practice behaviors and experience the impacts of decisions. Effective simulation is always grounded in real-life metrics, or measures of performance. The metrics used in a simulation must match the same measures of performance that are used in real life. Simulations have many similarities to games. They can be competitive and they often have scores of one kind or another. Both have an element of competition and achievement of goals”.*

-- KAPP, Karl M. (2014). *The Gamification of Learning and Instruction Fieldbook: Ideas into Practice*. John Wiley & Sons. ISBN 978-1118674437 --

*“Concisely stated, a business game is an attempt to develop a situation which approximates business reality and requires the participants to make a series of decisions, often interrelated, in a competitive endeavor”.*

-- TRUMP, Guy; BALL, J. T. (1968). *The Use of Business Games in Introductory Accounting Courses – Retrospective and Prospective*. In *The Journal of Accountancy*, July 1968. pp 85-88 --

Thank you very much for your attention.

Kind regards,

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## An Interactive Learning Approach to Accounting Classes

### Annex 5 – Survey Results

Q1: Gender and Age					
Answer Options	Less than 35	35-50	51-65	More than 66	Response Count
Male	11	31	22	7	71
Female	2	14	8	0	24
<i>answered question</i>					<b>95</b>
<i>skipped question</i>					<b>2</b>

Q2: Are you currently teaching/lecturing?		
Answer Options	Response Percent	Response Count
Yes	89.7%	87
No	10.3%	10
<i>answered question</i>		<b>97</b>
<i>skipped question</i>		<b>0</b>

Q3: Which courses do/did you teach/lecture?		
Answer Options	Response Percent	Response Count
Financial Accounting	61.9%	60
Financial Statement Analysis	28.9%	28
Financial Reporting	19.6%	19
Financial Accounting Standards	15.5%	15
Managerial Accounting	41.2%	40
Cost Accounting	25.8%	25
Management Control Systems	16.5%	16
Audit	7.2%	7
Accounting for Mergers and	8.2%	8
Other (specify)	12.4%	12
<i>answered question</i>		<b>97</b>
<i>skipped question</i>		<b>0</b>

Number	Response Date	Other (specify)
1	abr 24, 2014 10:35 AM	Valuation
2	abr 23, 2014 2:40 PM	Ethics
3	abr 23, 2014 2:29 PM	Intro to Tax
4	abr 17, 2014 6:10 PM	Accounting for Income Taxes
5	abr 16, 2014 8:52 PM	Intro to Business
6	abr 16, 2014 8:08 PM	State and local tax
7	abr 16, 2014 3:03 PM	corporate reporting, governance and social responsibility
8	abr 16, 2014 1:51 PM	Tax
9	abr 16, 2014 1:35 PM	Tax
10	abr 16, 2014 12:34 PM	Decision Processes in Accounting
11	abr 16, 2014 12:19 PM	Tax Accounting and Tax Ethics
12	abr 16, 2014 12:12 PM	Performance Maurement

## An Interactive Learning Approach to Accounting Classes

Q4: Where (country)?		
Answer Options	Response Percent	Response Count
Belgium	0.0%	0
France	26.3%	5
Germany	15.8%	3
Italy	0.0%	0
Netherlands	0.0%	0
Portugal	0.0%	0
Spain	21.1%	4
Sweden	5.3%	1
Switzerland	0.0%	0
U.K.	0.0%	0
U.S.	36.8%	7
Other (please specify)	0.0%	0
<i>answered question</i>		<b>19</b>
<i>skipped question</i>		<b>78</b>

Q5: Do you use computer-based simulations in your accounting classes?		
Answer Options	Response Percent	Response Count
Yes	18.9%	18
No	81.1%	77
If the answer is Yes, please specify its name:		16
<i>answered question</i>		<b>95</b>
<i>skipped question</i>		<b>2</b>

Number	Response Date	If the answer is Yes, please specify its name:
1	abr 24, 2014 6:33 AM	developed in the school
2	abr 23, 2014 2:30 PM	Audit
3	abr 20, 2014 11:33 PM	Balanced Scorecard Simulation
4	abr 18, 2014 8:08 AM	Company specific simulation named Heion
5	abr 17, 2014 8:11 AM	Cases based on a Discounted Cash Flow model in Excel
6	abr 16, 2014 8:09 PM	Simulations are used but not from the computer but live
7	abr 16, 2014 6:24 PM	Connect
8	abr 16, 2014 5:51 PM	Privately designed
9	abr 16, 2014 5:47 PM	of my own construction
10	abr 16, 2014 5:35 PM	Marketplace
11	abr 16, 2014 2:22 PM	"Debit and Credit" and "Accounting Equation" apps for iPad. "Financial Accounting" and "Allegro...ma non troppo" multimedia cases by IE Business School
12	abr 16, 2014 2:02 PM	MEC LAB IV
13	abr 16, 2014 12:34 PM	@Risk
14	abr 16, 2014 12:13 PM	I use the experimental software from the University of Virginia (veconlab), and customize the experiments to accounting settings
15	abr 16, 2014 12:13 PM	Monte Carlo Simulation (Crystall Ball) and other simulation based on Excel templates
16	abr 16, 2014 12:12 PM	Self developed

## An Interactive Learning Approach to Accounting Classes

Q6: If the answer to the previous question is No, why not?		
Answer Options	Response Percent	Response Count
There are no computer-based simulations technically designed to address classes' needs	29.2%	19
Simulations are too complex for university teaching	4.6%	3
I do not have enough time to prepare classes with simulations (time consuming)	38.5%	25
There is no empirical evidence in favour of simulations as to its teaching effectiveness	13.8%	9
Simulations are expensive	10.8%	7
Due to technological issues	10.8%	7
I prefer the traditional methods of teaching/learning	49.2%	32
Accounting concepts are not prone to the use of interactive learning approaches	0.0%	0
Other (please specify)		17
<i>answered question</i>		<b>65</b>
<i>skipped question</i>		<b>32</b>

Number	Response Date	Other (please specify)
1	abr 25, 2014 5:02 PM	Not familiar with the technology. Would use one if I think useful
2	abr 23, 2014 3:30 PM	Courses are short (#hours in class) to allow for coaching students for simulations
3	abr 23, 2014 2:45 PM	I have not thought about it. But, if I did there would have to be a case made that learning improves with computer simulations
4	abr 23, 2014 2:42 PM	I teach in a management context, and not just acc. technics There are computer-based simulations available for my course. However, I think they focus on nitpicky details too much. It is too time consuming to design my own, more big picture simulations.
5	abr 23, 2014 2:30 PM	Even on paper, though, tax returns are kind of like a simulation in that answers must flow from one form to the next.
6	abr 22, 2014 8:39 AM	never considered
7	abr 21, 2014 4:12 PM	I use computer-based simulations in specific seminars (more generalist than accounting)
8	abr 21, 2014 3:27 PM	Existing simulations for M&A are not rigorous
9	abr 16, 2014 4:36 PM	I prefer to use class time for interaction among students and between students and faculty
10	abr 16, 2014 3:59 PM	Limited class time. Do not see value for intro material
11	abr 16, 2014 3:20 PM	I dont know suitable simulations consistent with my financial reporting course learning objectives
12	abr 16, 2014 3:04 PM	the course focus is qualitative in nature
13	abr 16, 2014 2:41 PM	Take too much class time.
14	abr 16, 2014 1:37 PM	We use case studies, but they are not competitive. We focus on compliance in the intro to tax courses. While I agree with the final choice above, it is more than that. I teach a model of accounting that
15	abr 16, 2014 1:12 PM	requires students to think, not react, with an emphasis on accounting rules and results of recording; and what financial statements report.
16	abr 16, 2014 12:40 PM	I use current financial statements I use cases, which in fact is quite a simulation itself. I prefer the hard way: read the case, identify the relevant info and develop a critical spirit as well as the capacity to see the impact of figures in
17	abr 16, 2014 12:39 PM	behaviour, rather than the detailed accounting intricacies. I prefer to teach management with accounting figures rather than accounting

## An Interactive Learning Approach to Accounting Classes

**Q7: What do/would you consider most valuable in an accounting simulator?**

Answer Options	Response Percent	Response Count
Technical background / academic contents (bulletproof)	26.4%	24
Attractive storyline	33.0%	30
Real-life environment	59.3%	54
Capstone tool that aggregates several interlinked subjects	28.6%	26
Competition attribute	8.8%	8
Ranking ("grade helper")	7.7%	7
User friendliness / playability	59.3%	54
Availability in different devices (computers, tablets,	23.1%	21
Give real time feedback to students based in their decisions	44.0%	40
Discussion boards to share learning experiences	15.4%	14
Possibility to participate in international contests	6.6%	6
Other (please specify)		7
<i>answered question</i>		<b>91</b>
<i>skipped question</i>		<b>6</b>

Number	Response Date	Other (please specify)
		Attractive story line, real life environment and competition attribute would
1	abr 23, 2014 3:32 PM	come next
2	abr 16, 2014 7:29 PM	none of the above
3	abr 16, 2014 2:43 PM	None
4	abr 16, 2014 1:16 PM	I cannot answer this question.
5	abr 16, 2014 12:51 PM	I retired over 7 years ago and really had no answer.
6	abr 16, 2014 12:45 PM	I have not given serious consideration to this alternative. So, I have not developed a solid approach to what you ask
7	abr 16, 2014 12:17 PM	Better at explaining concepts than traditional methods

**Q8:If you do not use a computer-based simulation in classes, are you willing to try a computer-based simulation tool in your classes, at least once?**

Answer Options	Response Percent	Response Count
Yes	69.9%	51
No	30.1%	22
Other (please specify)		9
<i>answered question</i>		<b>73</b>
<i>skipped question</i>		<b>24</b>

Number	Response Date	Other (please specify)
1	abr 23, 2014 2:43 PM	I'd already done trials and probes...
2	abr 16, 2014 4:37 PM	Not currently, but we are considering an overhaul to our curriculum at the school level. If it aligned with that, I would consider it.
3	abr 16, 2014 3:05 PM	for financial/economic analysis can be appropriate
4	abr 16, 2014 2:43 PM	Not in the 8-week class I'm currently teaching
5	abr 16, 2014 2:43 PM	Highly doubtful. I've considered them.
6	abr 16, 2014 1:52 PM	I am having trouble imagine how they would work in a tax class.
7	abr 16, 2014 1:16 PM	Perhaps. I would have to see the package before I would consider trying it.
8	abr 16, 2014 12:20 PM	Would have to decide based on the product
9	abr 16, 2014 12:17 PM	If the abode attributes were there

## An Interactive Learning Approach to Accounting Classes

### Additional answers received by e-mail:

School	Department	Professor	Answer
INSEAD	Accounting and Control	Daniel A. Bens	<p>Do you use computer-based simulations in your classes? (If the answer is Yes, please specify its name)</p> <p><b>NO.</b></p> <p>If the answer to the previous question is No,</p> <p>o Why not?</p> <p><b>TWO REASONS:</b></p> <p><b>1. I AM NOT AWARE OF ANY PRODUCT.</b></p> <p><b>2. WE DO "SIMULATIONS" VIA CASE ANALYSES IN CLASS. WHILE NOT THE SAME AS A SIMULATION AS YOU DEFINE IT BELOW, IT REPRESENTS WHAT WE WANT THEM TO GET OUT OF AN MBA FINANCIAL ACCOUNTING COURSE, WHICH IS THE ANALYSIS OF DATA FOR MAKING SOME STRATEGIC DECISION.</b></p> <p>o Are you willing to try a computer-based simulation tool in your classes, at least once?</p> <p><b>MAYBE. THE PRODUCT WOULD HAVE TO BE RIGHT BEFORE I WENT LIVE WITH IT.</b></p> <p>What do/would you consider most valuable in an accounting simulator?</p> <p><b>HAD THEM MAKING DECISIONS AND SEEING FEEDBACK EFFECTS.</b></p>
ESCP	Financial Reporting and Audit	Alain Mikol	<p>My responses are:</p> <p>1) no</p> <p>2) Because I teach how to build financial accounts (if you prefer: how a computer works to build financial accounts) and how to evaluate assets and liabilities</p> <p>3) I do not need a computer-based simulation tool because it is out of my objectives</p>
London Business School	Accounting	Eli Amir	<p>Do you use computer-based simulations in your classes? (If the answer is Yes, please specify its name)</p> <p><b>NO</b></p> <p>If the answer to the previous question is No,</p> <p>o Why not?</p> <p>o Are you willing to try a computer-based simulation tool in your classes, at least once?</p> <p><b>Not interested. Not willing to try.</b></p> <p>What do/would you consider most valuable in an accounting simulator?</p> <p><b>Nothing. I am using real cases.</b></p>
Mendoza College	Accountancy	Juan M. Rivera	<p>I have retired and currently I am not teaching, so I am afraid that I could not help you with this. I only occasionally teach one class as an adjunct instructor and I do not use simulation programs but rather my own notes and accounting cases.</p>
Cornell Johnson Graduate School	Accounting	Robert J. Swieringa	<p>I now teach corporate governance courses rather than financial accounting classes and therefore decided not to complete your survey. In teaching financial accounting classes I did not use computer-based simulations in my classes. The accounting classes I taught were for MBAs and Executive MBAs and we focused on excerpts from actual financial statements as the basis for case problem and exam material. We are more focused on having our students learn how to use (read, interpret, and analyze) corporate financial statements in annual reports and SEC filings. Accounting has a comparative advantage over other functional areas of business in that students and others can observe and use the financial statements that are generated from underlying accounting systems. Accounting work product is in the public domain. I have forwarded your survey to Mark Nelson who teaches financial reporting. I do not know if you asked others at Cornell to complete your survey. Bob Swieringa</p>
SDA Bocconi	Accounting, Control, Corporate and Real Estate Finance	Franco Amigoni	<p>I do not teach in Sdabocconi since at least 10 years.</p> <p>for this reason I forward your mail to andrea dossi, currently director of the accounting area in Sda. I am sure that He can help you in our research</p>
IE Business School	Accounting and Management Control	Garen Markarian	<p>Do you use computer-based simulations in your classes? (If the answer is Yes, please specify its name)</p> <p><b>NO</b></p> <p>If the answer to the previous question is No,</p> <p>o Why not?</p> <p><b>MY MATERIAL IS JUST FINE. I DO NOT WANT TO LEARN ANYTHING NEW.</b></p> <p>o Are you willing to try a computer-based simulation tool in your classes, at least once?</p> <p><b>NO, I AM VERY BUSY. MY CLASS IS JUST FINE.</b></p> <p>What do/would you consider most valuable in an accounting simulator?</p> <p><b>REAL-LIFE ASPECT. DEEP LEARNING EXPERIENCE. STUDENT SATISFACTION. SIMPLICITY</b></p>

## An Interactive Learning Approach to Accounting Classes

School	Department	Professor	Answer
HEC	Accounting and Management Control	Sebastian Becker	<p>Do you use computer-based simulations in your classes? (If the answer is Yes, please specify its name)</p> <p><b>Sentra Simulation</b></p> <p>If the answer to the previous question is No,</p> <p>o Why not?</p> <p>o Are you willing to try a computer-based simulation tool in your classes, at least once?</p> <p><b>Yes</b></p> <p>What do/would you consider most valuable in an accounting simulator?</p> <p><b>The fact that this allows students to work and learn by themselves and that it simulates real business conditions.</b></p>
Rotterdam School of Management	Accounting & Control	Paolo Perego	<p>I am currently not using computer-based simulations in my classes. I think the major hurdle is lack of time for the implementation of this type of learning tools. Textbooks and publishers are also not well equipped to provide support for this type of tools.</p> <p>My department has just closed a deal with SAP to integrate their on-line modules and simulators into some accounting courses. We will experiment next year and hopefully be able to spread this type of tools in more classes. Computer-based simulation tools mainly add value in allowing students to experience interactively how to frame and provide solutions to an unstructured business problem.</p>
TiasNimbas	Accounting and Control	Arco Ven	<p>Do you use computer-based simulations in your classes? (If the answer is Yes, please specify its name)</p> <p><b>NO</b></p> <p>If the answer to the previous question is No,</p> <p>o Why not?</p> <p><b>Doesn't fit with the objective and content of the courses I teach.. (AIS, internal control and risk management; I don't teach management accounting - computer simulations would fit better.</b></p> <p>o Are you willing to try a computer-based simulation tool in your classes, at least once?</p> <p><b>NO</b></p> <p>What do/would you consider most valuable in an accounting simulator?</p> <p><b>Not applicable.</b></p>
Stockholm School of Economics	Accounting	Ingolf Kloppenburg	<p>I am not yet a professor. So in order not to influence the reliability of your results, I am not going to participate in your survey.</p>
ESCP	Financial Reporting and Audit	Jean-Yves Eglem	<p>Sorry but I am an emeritus Professor. It means that I am now retired.</p>
TiasNimbas	Accounting and Control	Fred Vlotman	<p>I am retired, so I should not be in your population. Skip me, so I don't lower your response rate. Wish you success.</p>
ESSEC	Accounting and Management Control	Adrian Zicari	<p>I don't use simulations. I do use some games, some of them are quite simple indeed. Maybe it is because I teach Control, not traditional accounting. I also use excerpts of films as a basis for class discussion.</p> <p>the idea is to involve students in a new issue and help them to think</p>
Kellogg	Accounting Information & Management	Craig Chapman	<p>Answer is Yes</p> <p>Dragon Soup - uses Excel to provide real time changes to footnote disclosures associated with real management decisions around earnings management behaviors.</p> <p>Effective allows students in one group to "Cook the Books" and second to "uncook them"</p> <p>Most valuable is ease of use by students...this was achieved by inserting radio buttons into spreadsheet so there are only a limited @ of choices they can make</p>

## An Interactive Learning Approach to Accounting Classes

### Annex 6 – The Simulation Field

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#### Introduction

– Mary, I was invited to lead the Finance Department of InovCork, a recently created company that produces cork stoppers!

You have, however, mixed feelings about what you have just told to your wife. The challenge is huge: so many things to do in a short period. You learned a lot during the 4 years spent as business controller at Amorim, the largest world producer of cork products. Hopefully, some of the subjects covered during your undergraduate program will also help you, but...

– Am I able to assume such a responsibility?

#### InovCork

InovCork was created in the beginning of last year by a group of 3 old-friends: John, the CEO, a forestry engineer specialized in cork oak trees harvesting; Peter, the COO, a mechanical engineer specialized in manufacturing of forestry products; and Tom, the CMO, a marketer with a deep knowledge of the cork industry and international markets. They created a very appealing business plan around the following motto: bring a natural color to your table and create a collaborative art collection!

InovCork's production process is quite simple. Raw materials are supplied during the months of May to August by the best cork producers in Portugal, Spain, Italy, and some North African Countries. InovCork forestry team perform a careful inspection to ensure the quality of cork barks and the preservation of cork oak trees, which are stripped only every nine years. After harvesting, the barks are stacked up in open air concrete areas near InovCork factory, for approximately 6 months.

Then, the actual production process starts and it includes 7 main activities: boiling/cleaning; trimming/piling/grading; punching; granulating/molding/gluing (technical stoppers only); washing/drying/sorting (natural cork stoppers only); finishing/coloring; quality controlling; packaging/dispatching.

InovCork produces 2 different products: natural cork stoppers, extracted from cork barks; and technical stoppers, made from granules, a by-product that result from the narrow planks and punching of natural cork stoppers. Both natural cork stoppers and technical stoppers are produced in 7 different colours (the rainbow pallet). Unused cork, scrap and dust are sold for processing into other cork products such as insulation and construction materials.

The business plan attracted many business angels and venture capital firms and some millions of euros were injected in the project. With so much money involved, investors demanded for the recruitment of a finance specialist, in order to implement the necessary management and accounting control systems and to produce the financial reporting.



## **An Interactive Learning Approach to Accounting Classes**

– Congratulations Mike, you are hired. Would you join us next week? – John told you some minutes after you meet him.

You were very proud with the invitation but when you were waiting for a taxi at the reception of InovCork you heard something that is making you feel unsure...

– I told you John. In my opinion this guy is too junior for the position. I will give you (and him) 1 month. No more; no less! – said George, the major investor and one of the most influential players in venture capital markets.

### Accounting systems and financial reporting

The cork manufacturing is typically a capital intensive industry: you know from your experience at Amorim that fixed assets represent approximately 30% of total assets. Inventories, which are kept in stock for at least 6 months, are the most relevant amount, assuming almost 40% of total assets. Thus, the accounting standards that rule fixed assets and inventories are very important and should deserve your careful attention.

Moreover, from a managerial accounting point of view, you also know that you will deal mainly with process costing, equivalent units, spoilage, rework, and scrap. Inventory costing is a big issue and activity based costing a subject to consider (or not). Investors are also very concerned about having a balanced scorecard where they can check in real-time the evolution of some key indicators, such as sales growth, breakeven analysis, EBITDA margin, working capital ratios, and budget variances, among others.

However, to build a balanced scorecard you need to have, beforehand, a well implemented Enterprise Resource Planning (ERP) system or similar, to support the activity and allow you to have a bulletproof financial reporting. Charles, a childhood friend of you, is Partner at a well-known consulting firm and he has a lot of experience in the implementation of management systems for manufacturing companies. But... “Do I have time and money?”

In the meantime, you found that InovCork does not even have a budget or an income statement structure aligned with the accounting standards. The only financial information prepared by InovCork so far is a kind of cash-flow statement, based in bank accounts’ statements, and the initial business plan, containing some rough estimations about sales, expenses, and cash/capital needs.

Additionally, you also found that InovCork signed a contract with an external accounting firm to guarantee the tax compliance work. An e-mail from Julia, the accountant, reports that there is a lot of management information missing to prepare the annual accounts, which you need to close very soon. Notwithstanding, at least all the invoices received from suppliers, all the invoices issued to clients, and all the cash/bank transactions are registered in the accountant’s system.

## **An Interactive Learning Approach to Accounting Classes**

### The simulation

Your mission, Mike, is to avoid being fired during your first month at InovCork! And if it is not asking too much, add as much value as possible.

During the first day of work you collected a lot of information including organization chart, last month's cash report, business plan, manufacturing process flow, products' description, photos, videos, meeting memos, and accounting transactions, among others. You also created a work-program, as follows:

- Perform a cost-volume-profit analysis, based in the information received from the accounting firm;
- Calculate cost of production, cost of inventories, and cost of sales per output of the manufacturing process (with or without the implementation of an activity based costing system);
- Determine variances between the actual information received from the accounting firm and the business plan;
- Prepare the master budget for the following year;
- Create an internal transfer pricing system and a performance measure system;
- Build the balanced scorecard;
- Define internal accounting rules and the structure for the financial statements, following IFRS/IAS;
- Prepare the year-end balance sheet, income statement, and cash-flow statement, reviewing all the accounting transactions booked by the accounting firm and doing the necessary adjustments;
- Do the analysis of main competitors' financial statements, in terms of liquidity, activity, risk, profitability, and valuation indicators.

You do not have time to focus in all these tasks and you have now 4 weeks (28 days, without sleeping!) to show your value...

### Some additional information

This simulation is to be played in teams of 4. Each team will need to register before the simulation begins. Your instructor will provide a web address where you will access your company's data and register your decisions. The simulator runs continuously and you have no control over the simulator's clock. Each hour in real life's clock corresponds to 1 day in simulator's clock.

Value is measured (winning condition) by the overall level of satisfaction with your performance at the end of the 4-week period.

### Some internal mechanics (not to be shared with students)

Teams will have access to their own score and other teams' scores in real-time. The score is a global index that ranges from 0% to 100% and incorporates an algorithm able to measure the combined level of satisfaction of the following 8 different perspectives considered in the simulation:

## An Interactive Learning Approach to Accounting Classes

<b>Name</b>	<b>Role</b>	<b>Criteria</b>
Mike	Player	Self-evaluation... lessons learned
Mary	Wife	Work-life-balance... if you spend weekends working: unhappy!
John	CEO	Profitability: net income
Peter	COO	Reliable information for efficiency (cost reduction)
Tom	CMO	Reliable information for pricing
George	Investor	Accurate information: arithmetically and technically
Charles	Consultant	New contract with his firm...
Julia	Accountant	Accurate information for statutory purposes (variable costing, no way!)

For example, if a certain team decides to implement an activity based costing system, they will, most likely, reduce net income (increase costs), increase information accuracy, and decrease work-life-balance (more time spent at work to implement a new and complex system!).