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FINANCIAL LEASING OR RENTING? CASE STUDY IN THE CLASSROOM

María Esperanza Calvo Centeno[1], Joaquín Galván Vallina[2], Mª Victoria Gutiérrez Duarte[3]

Abstract

The main objective of the activity is to solve a financial simulation in such a way that the student learns to work in a team through organizational and planning skills, results orientation and responsibility, as it happens in the business world. The methodology used to implement this activity is Flipped Classroom, considering that it is the most appropriate for the students to acquire the skills that allow them to advise the management team of a company. The activity takes place in a consulting project in which a company requests advice from our students to make an investment decision. The company needs to acquire a transport element and wants to know the financial, accounting and tax consequences that could be derived from making the investment through two different financing instruments: financial leasing or renting. The results of the evaluation carried out by the students show significant satisfaction in the acquisition of competences, given that 60% consider that the activity has been highly beneficial in their learning.

JEL classification: G3, M4, H2

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[1]Department of Economics and Business, Faculty of Social Sciences and Communication, Universidad Europea de Madrid, esperanza.calvo@universidadeuropea.es , 0000-0002-4562-8796.
[2]Department of Economics and Business, Faculty of Social Sciences and Communication, Universidad Europea de Madrid, joaquin.galvan@universidadeuropea.es , 0000-0002-0024-9469.
[3]Department of Economics and Business, Faculty of Social Sciences and Communication, Universidad Europea de Madrid, vic.duarte@universidadeuropea.es , 0000-0001-6190-4263.

Introduction

In the late 1990s, the European Union began to undertake a series of reforms whose aim was to adapt higher education to the new "knowledge society". This concept refers to the major transformations taking place in today's society. According to Drucker (1994), in this new society education will become the centre of the knowledge society, and the school its key institution. Quality in learning and teaching has become a fundamental concern in the knowledge society and, therefore, in political issues.

In this context, the European Union gave an essential role to universities, which has necessitated multiple changes in many areas: teaching methodologies, qualification structures, quality of learning, and student mobility. Following various meetings and agreements, on June 19, 1999, a declaration was signed in the city of Bologna, which represented a great change in many aspects of higher education. The Bologna Declaration gave rise to the EHEA, created in order to achieve convergence and comparability in European university systems. This facilitates the employability, mobility and recognition of university degrees across Europe.

From the outset, the fundamental objective of the EHEA was to change the traditional educational model in higher education. This traditional model was based on the mere transmission of knowledge from professor to student, whereby the latter had a passive role in the process. Usually, the professor simply gave what we call "master classes" and the student listened and took notes. The teaching model introduced by the EHEA is radically different. The new model shifts much of the learning responsibility towards the student.

Through these changes, as stated by Román (2010), the student becomes the centre of the learning process, the protagonist of his or her education, always guided by the professor. The student should take an active role in the search for knowledge based on the instructions given by the professor, who will be in charge of advising and evaluating their knowledge through the materials provided by the student periodically.

In addition, the EHEA has brought about a very important change related to the ultimate goal of university education. Whereas the traditional system aimed to ensure that students would have acquired a certain amount and level of knowledge by the end of their studies, now the goal is to ensure they also acquire a set of skills or competencies. These competencies differ depending on the subject, but they can be divided into categories such as “generic” or “cross-cutting”. Examples of the latter would be the student's ability to apply acquired knowledge, solve future problems, integrate knowledge, communicate conclusions clearly, or self-learning in the future. These competencies, by their very nature, can only be achieved if the student adopts an active role in their learning (Román, 2010).

These major changes in the higher education system have made it necessary to alter the model in teaching-learning processes and, therefore, in evaluation processes, which logically has entailed a challenge for professors, who have had to apply new evaluation methodologies to ensure the acquisition of competencies (Muñoz et al., 2013).

In summary, the educational innovation implied by this model provides the following main benefits:

1) it allows professors to devote more time to managing diversity,
2) it provides an opportunity for professors to share information and knowledge with each other and with students,
3) it gives students the opportunity to access the best content generated or facilitated by their professors,
4) it creates a collaborative learning environment in the classroom.

One of these methodologies is known as the "Flipped Classroom", which has served as a basis for developing the activity discussed in this article.

The Flipped Classroom methodology consists of taking the work of certain learning processes out of the classroom and using class time, together with the professor's experience, to facilitate and enhance other processes of knowledge acquisition and practice inside the classroom.

The Flipped Classroom is based on inverting the manner in which the instruction is presented. In other words, the students assimilate concepts and do the study work outside the classroom, and subsequently carry out the practical activities in the classroom. In this methodology, the professor provides the students with the necessary educational materials to prepare the session. Then, in the classroom and interacting with the professor, they complete the practical activities in order to master the concepts they have studied previously.

The new pedagogical approach that the EHEA entails implies a reorientation of courses that places special emphasis on developing the generic and specific competencies that graduates must have acquired by the end of their studies. To be able to assess these competencies, it is especially important that students demonstrate a participative attitude during the face-to-face classes. Accordingly, educational research has been focusing heavily on the development of teaching methodologies, among them the Flipped Classroom.

The objective is to improve the learning process, compared with existing systems; the Flipped Classroom concept should ensure students have access to extraordinary teaching (Fulton, 2012). However, there is very little work investigating student learning outcomes objectively, as noted by Lowell et al. (2013), but the emerging experiences of Phillips and Trainor (2014) are showing the benefits of this teaching method in millennial students –born between 1982 and 2005– (Howe & Strauss, 2007). "Millennials" have always lived in a world where technology is ubiquitous and they have a preference for interactive and experiential-learning approaches, which take place in the flipped classroom.

In short, the Flipped Classroom seeks to free up the class time dedicated to the transmission of mere information in order to devote it to knowledge production on the part of the student and the integration of that knowledge with the professor and other students, as shown by Roehl et al. (2013) and Gilboy et al. (2015).

In the aforementioned Flipped Classroom environment, the "Consultancy in the classroom" activity was designed to guide the university student in his or her future professional life by integrating the knowledge acquired in three different courses. Applying this methodology, the student prepares the material more thoroughly before coming to class and attains a greater level of achievement during the class due to the two-way process afforded during the time spent there. The student is able to better take advantage of the activity because having prepared it outside the classroom means he or she has a higher degree of commitment to it.

Flipped classroom methodology: theoretical framework

Flipped Classroom is based on the Scaffold Theory (Wood et al., 1976), which in turn has Vygotsky (1986) as its main source. The "scaffolding" is the aid provided by the professor, which will differ according to the number of scaffolds or supports the student needs. It originated at the beginning of the 21st century in the experiences of Salman Khan and Bergmann and Sams.

The combination generated by the technological movement and the ideological movement facilitates the opening of barriers to access to education through Internet access and free software (Bishop & Verleger, 2013). The change manifests itself in 2001 when the MIT (Massachusetts Institute of Technology) launched the OpenCourseWare (OCW) initiative, facilitating access to information. Along the same lines, in 2006, MIT student Salman Khan creates Khan Academy, whose mission, as stated on its website, is "to provide a world-class free education for anyone anywhere" (Khan Academy, 2017). To achieve the proposed goal, they offer resources for personalized learning, such as videos and practice exercises.

In turn, the professors Bergmann and Sams begin to record their classes on video for students who had not been able to attend any of their face-to-face classes and so facilitate their study. They also realize that this is a better way to meet the educational needs of each student, integrating the videos in a general approach and giving shape to the expression "flipped classroom" (Bergman & Sams, 2012). For them, inverting the class entails taking home what is usually done in class and doing in class what is usually done at home.

The Flipped Classroom model, in addition to being underpinned by technological elements, is based on the constructivist theory of learning (Davies et al., 2013), in relation to the process of problem solving in a collaborative task. As pointed out by Talbert (2012), the inverted classroom allows practice activities to take place in the classroom in collaborative working groups.

Authors such as García-Barrera (2013) understand that the inverted class is an approach that combines classroom teaching with methods based on constructive approaches to learning, which can support all phases of the Taxonomy of Education Objectives (Bloom, 1977). These objectives, from the cognitive perspective, are: knowledge, understanding, application, analysis, synthesis and evaluation. They are hierarchically ordered, based on knowledge defined as "the capacity to remember specific and universal facts, methods and processes, or a scheme, structure or frame of reference" (Bloom, 1977, p. 5). As the objectives are reached, the learning process is progressing. This constructivist perspective coincides with Weimer's (2002) vision of student-centred teaching and the student's involvement as an active part of his or her own learning process.

As evidenced by Berrett (2012) and Tucker (2012), in the field of higher education there are many experiences showing the benefits of the inverted class as compared with the traditional class (Walsh, 2013a). Such benefits include encouraging student participation, increasing the exchange of ideas on the topics covered, and deeper learning.

Implementation of the inverted classroom has been studied from the perspective of different disciplines, without conclusive results being reached. Some authors refer to difficulties arising from the additional work generated for the student, such as finding and organizing the necessary resources to obtain information (Rodríguez et al., 2015). The study by Jensen et al. (2015) suggests that the inverted approach offers no additional benefits for stu-

dent learning. Missildine et al. (2013), seeking to analyse the effects of the Flipped Classroom and innovative academic learning activities on student success and satisfaction, concluded that they can lead to improvements in learning, but not necessarily in student satisfaction. The research findings of Jordan et al. (2015) show that the success of inverted education depends on many factors, but students say that the main motivation is direct collaboration with each other. According to the study carried out by Simpson and Richards (2015), students who prepare the class outside the classroom are involved in carrying out the activities with a higher level of commitment than students in the traditional class.

Authors such as Szoka (2013) and Walsh (2013b) present empirical evidence that the inverted class improves learning outcomes. Their respective works demonstrate and analyse an experience with university students which integrates elements of the inverted classroom in solving a problem in a collaborative way, addressing only a common part of the content of three subjects.

Teaching-learning objectives

The main objective of the activity is to solve a financial simulation in such a way that the student learns to work in a team through organizational and planning skills, results orientation and responsibility, as it happens in the business world.

In Spain, for a degree to be official it must be accredited by ANECA[4], which requires universities to present a degree programme specifications document detailing different aspects of the curriculum. One of these aspects is the list of competencies that undergraduate students will acquire during their studies.

The activity helps students develop the competencies defined in the degree programme specifications. There are two types of competencies: on the one hand, the generic competencies or teaching objectives, referring to general aspects necessary for proper development and progress in any professional field and, on the other hand, the learning objectives or specific competencies, characteristic of a profession or a particular area of knowledge.

Teaching objectives:

Within the current educational framework, the activity carried out, in accordance with what is accepted by ANECA[5], generally has the following teaching objectives or generic competences:

1) Organizational and planning ability: Ability to establish objectives and choose the means to achieve these objectives, using time and resources in an effective way.
2) Results orientation: Ability to use the knowledge acquired in the academic field in situations as similar as possible to the reality of the profession for which they are being trained; for example, by relating theoretical foundations with their application to real problems of daily life, addressing problems and situations similar to the professional activity, or resolving issues and/or real problems.
3) Responsibility: Fulfilling the commitment that the person makes to him or herself and to others when performing a task and trying to achieve a set of objectives within the learning process. Existing capacity in every subject to recognize and accept the consequences of an action freely performed.
4) Teamwork: Ability to integrate and collaborate actively with other people, areas and/or organizations to achieve common goals.

Learning objectives:

In specific terms, such as learning objectives or specific competencies, the activity seeks to:

1) Analyse, integrate and evaluate the information originating in the legal and socio-economic environment that is needed for decision making. With the reports that students receive from their peers, they integrate the knowledge they have played a part in gathering.
2) Understand the company's processes and functional areas, apply management tools and explain the relationships between them.
3) Achieve greater student participation and involvement in the material. This activity gives rise to a higher level of communication among the students and makes the whole group responsible for their report.
4) Secure the students' interest in the course and in the degree of the studies being pursued. When the activity deals with a real issue, similar to that which can occur in a company, the student has a greater degree of involvement.

[4] ANECA (National Agency for Quality Assurance and Accreditation) is an autonomous organization, accountable to the Ministry of Education, Culture and Sport of Spain, which aims to contribute to the improvement of the quality of the higher education system through the evaluation, certification and accreditation of teaching, teaching staff and institutions).

[5] Generic competencies accepted by ANECA.

5) Become acquainted with and understand the functional areas of the company and apply the various tools available in each of them, as well as to recognize the main existing relationships among them. The activity being based on a real case facilitates attainment of these skills.

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The activity is carried out in three subjects of the Bachelor's Degree in Business Management and Entrepreneurship, specifically: Financial Management (3rd year, with 15 students), Accounting for SMEs (3rd year, with 15 students) and Business Taxation (4th year, with 10 students).

The activity allows the skills defined above –necessary for the future professional practice of students of this degree– to be developed. Teamwork is essential because it implies the integration of knowledge acquired in the three subjects.

In addition, students must be responsible and committed to themselves and to the rest of their classmates, since the correct performance of each of the tasks assigned to each group depends not only on their work but also on the rest of their classmates. They must have the capacity to organize and plan correctly, since meeting the delivery deadlines is essential for properly completing the activity. Finally, the activity allows students to apply the theoretical knowledge acquired in the different subjects in resolving a real problem in their professional field.

Description of the activity

We implemented the activity using the Flipped Classroom methodology, which seeks to ensure that the student is the protagonist in the learning process and the professor an essential form of support throughout that process. During the activity the student becomes acquainted with the functional areas of the company and uses the different tools available in each area to resolve a proposed case[6], as well as to recognize the principal relationships between the areas involved, namely: finance, accounting and taxation. For this purpose, professors of three different subjects and students from three different courses designed a cross-cutting activity called "three to three": Financial Management, Accounting for SMEs, and Business Taxation.

The proposed case is resolved by students contributing knowledge that they themselves acquire while working in groups of three to five members. It has been determined that teamwork is the most suitable technique for achieving these objectives because it allows the students to share similar experiences. This, in turn, allows them to develop generic and specific competencies of a cross-cutting nature, which in the traditional lecture method is difficult to put into action. In order to resolve the case, it is necessary for the students of each different subject to approach the case from a different point of view (financial, accounting and fiscal), so that by pooling their contributions they can arrive at a deeper and more integrated understanding of the different points of view.

The activity takes the form of a consulting project in which a company asks our students for advice to make an investment decision. Specifically, the company needs to acquire a means of transportation and wants to know the financial, accounting and fiscal consequences that would result from making the investment through two different financing instruments: leasing or renting.

It is necessary to carry out this activity in three phases, each of which corresponds to a department related to each of the functional areas identified, and at three different moments in time: at the beginning of the Financial Management course, during the second month of the Accounting for SMEs course, and during the last month of the trimester of the Business Taxation course. At the end of each phase, each group must submit a report to their professor with the suggested solution for the proposed case. This report, after being revised, will serve as a knowledge base for the students in the subsequent department.

The activity takes place across two sessions, the first at the beginning of the activity in each of the courses. At this point, the professor informs the students about the content of the activity, how to acquire the theoretical concepts through videos and readings, and the competencies they are expected to have acquired on completing the report. A brainstorming session guarantees the cooperation of all the members of each group and that they will take advantage of the results of the work carried out.

In the second session of each subject, each group of students completes the corresponding report and presents it to the rest of their classmates. The professor of each subject will assess the reports and determine which one is the best and therefore should be sent to the next department.

Finally, in the second session held in the last of the three courses involved, the three reports are consolidated into one, which is then sent to all students who have participated in the activity. The goal is for students to see how different departments of a company work and how all the information for decision making is integrated.

In each of the subjects, the activity unfolds as follows:

[6] The wording of the case is in the annex included at the end of the article.

FIRST SESSION: The professor informs the students about the objective, methodology and content of the activity to make them aware of the cross-cutting aspect of the work and understand the importance of integrating the knowledge acquired in the three courses. This will help ensure they produce a final report the company can use as a management tool for decision making and will also promote an awareness of their future professional activity.

After also being told that the activity will involve using the Flipped Classroom methodology, the students are provided with the videos and readings necessary to acquire the theoretical knowledge outside the classroom. In this session, they receive information about how to carry out the activity, for which they must prepare a final report that facilitates the decision-making process vis-à-vis two possible alternatives. Each group, in each one of the three courses, plays the role of one of the three departments of a consultancy: financial, accounting and tax. The proposed case begins with a simulation, the statement of which is provided, and according to which a client requests advice because they need to undertake an investment consisting of a fixed asset for their business. And before making this investment they need to understand the financial, accounting and tax implications that could arise from acquiring the asset through either renting or leasing. The three departments must analyse the situation and prepare a report, first the Financial Department, then the Accounting Department, and finally the Tax Department. Finally, the students are told that the reports of all of the groups from each course will be consolidated into one and that one report will subsequently be presented to the consultancy's client.

SECOND SESSION: The students receive the questions they must address in each of the reports corresponding to each department, as shown below:

1) In the Financial Department, the students have to address the following questions in groups:

   a) What are the basic characteristics of leasing and renting?

   b) What are the similarities and differences between renting and leasing?

   c) What are the advantages and disadvantages of using leasing and renting contracts?

   d) What conclusions would you draw, from a financial point of view, regarding the classification of the different situations in which the use of each type of leasing or renting is more appropriate?

2) In the Accounting Department, students are given simulations of two leases and must answer the following questions about them:

   a) Have you identified the objective as being similar to an operating lease, or, on the contrary, does it resemble a financial lease based on the 7th Rule of Registration and Valuation "Leases and other operations of a similar nature" contained in the General Accounting Plan for SMEs?

   b) Have you recorded the accounting events resulting from the type of lease identified in the previous point?

   c) Have you calculated the effect on the Profit and Loss Account and on the Balance Sheet?

3) In the Tax Department, for each simulation the students must answer the following questions:

   a) Analyse the tax legislation applicable to these types of contracts. Is there any special regulation applicable to SMEs?

   b) From the point of view of Corporation Tax, which of the two contracts would be more advisable?

   c) Would the result be different for small or large companies?

Subsequently, in each of the sessions of the courses involved, the students present their different proposals in groups. Finally, the students discuss the different positions and draw conclusions. The professor evaluates the reports according to the rubric included in the following section and sends the best one to the next department.

Finally, in the tax department, as in the other subjects, the professor determines which report is the best. All the reports are then consolidated into one, which will be sent to the client.

Results

Evaluation

The fact that the activities can be evaluated (even though due to their content they do not have to be) arouses the students' interest in them. In this way, "Cross-cutting activity in the Flipped Classroom environment: Consultancy in the Classroom" is conceived of as part of the practical content of the Financial Management, Accounting for SMEs, and Business Taxation courses. Specifically, 15 third-year students participated in Financial Management and Accounting for SMEs, respec-

tively; and there were 10 Business Taxation students.

The professor is in charge of evaluation, which will entail assessing the reasonable defence of the different positions, the ability to agree on positions, and the quality of the work submitted by each group. The evaluation for the three courses is done within the category of group activities, which represents 30% of the final grade for each course.

According to the evaluation rubric we designed to assess the reports, the maximum score for each report is 10. As can be seen, the scores correspond to different items and depend on the degree of compliance in each case. This rubric is set out below.

Table 1: Evaluation rubric 1

EVALUATION CRITERIA	SCORE				
	4	3	2	1	0
Organization and presentation of the report	The presentation is adequate and conforms to the established format. Adequate sources have been used in the financial report. The accounting records have been clearly explained in the accounting report. The differences between the types of financing analysed have been established in the fiscal report. The reporting structures are clear and easy to follow. The calculations are clearly justified.	The presentation is adequate. It conforms to the established format but presents some deficiencies that are not very important. In the financial report, some of the sources consulted are not adequate. In the accounting report, some of the accounting records have not been clearly explained. The fiscal report does not deal with any of the forms analysed. The reporting structures are clear and easy to follow. The calculations are clearly justified for the most part.	The presentation is adequate and conforms to the established format, although it has some important deficiencies. In all the reports several items are not explained. The reporting structures are not clear and easy to follow. Most of the calculations are not clearly justified.	The presentation of the reports is not adequate and does not conform to the established format. In all the reports most of the items are not explained correctly. The structure of the reports is unclear and difficult to follow. The calculations are not justified.	The report has not been delivered.

Content of the report	**Financial report**	- Correct definition of the concepts of "Renting" and "Leasing". - Enumeration of all the differences between both concepts. - Determination of the advantages and disadvantages of using both forms of financing. - Justification of the different financing choices depending on the circumstances of the company.	The content of the report includes the first three points, but the choice of different forms of financing for the company is not adequately justified	The content of the report includes the first two points, but neither determines the advantages and disadvantages of the two types of financing, nor adequately justifies the choice of different forms of financing for the company.	The content of the report includes only the concepts of "Renting" and "Leasing". Important deficiencies are detected in all the other points.	The report has not been delivered.
	Accounting report	- Be able to identify the type of financing by analysing the two financial tables. - Properly perform all accounting records. - Correctly calculate the effect of using both types of financing in the Profit and Loss Account and in the Balance Sheet of the company.	The content of the report includes the first two points, but the effect of using both types of financing is not calculated correctly.	The content of the report includes the first point, but neither correctly performs all of the accounting records nor calculates the effect of using both types of financing.	In the content of the report, important deficiencies are detected in the three points.	The report has not been delivered.
	Tax report	- Correct analysis of the tax regulations applicable to the two types of financing. - Calculate correctly the amount of Tax that the company will pay using the two forms of financing. - Correctly analyse the tax benefits applicable to small companies related to different types of financing.	The content of the report includes the first two points, but tax benefits applicable to small companies are not correctly analysed.	The content of the report includes the first point, but it does not calculate correctly the amount of tax that the company must pay using the different forms of financing. Nor does it analyse the tax benefits applicable to small companies.	In the content of the report, important deficiencies are detected in the three points.	The report has not been delivered.

Source: Compiled by authors

Table 2: Evaluation rubric 2

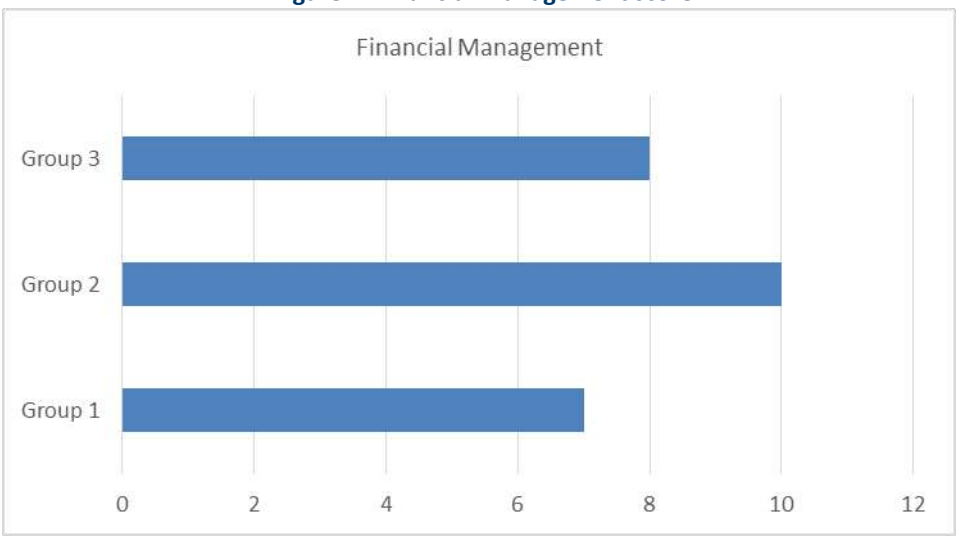
EVALUATION CRITERIA	SCORE		
	1	0.5	0
Work done collaboratively	There is evidence of the following aspects: - The whole team has been involved in the preparation and performance of the work. - Information has been shared and has helped improve the learning of all team members. - All the members of the team have been responsible for the work necessary to carry out the activity.	No evidence of any of the following aspects: - The whole team has been involved in the preparation and performance of the work. - Information has been shared and has helped improve the learning of all team members. - All the members of the team have been responsible for the work necessary to carry out the activity.	No evidence of the team as a whole having been involved in the preparation and performance of the work, whether it has shared information, or whether it has helped improve the learning of team members. It is not clear that all the members of the team have been responsible for the work necessary to carry out the activity.
Work done progressively	All the work necessary to prepare the report has been done progressively, and at the pace set by the professor. There is evidence of this progressive and orderly way of working (parallel to the content of the program).	All the work necessary to prepare the report has been carried out progressively, although not at the pace set by the professor. There is little evidence of this progressive and orderly way of working.	The work has not been done or has not been done progressively. There is no evidence of this progressive and orderly way of working, showing that the agreement has not been reached gradually and parallel to the content of the program.

Source: Compiled by authors

Regarding the results of this activity, in terms of academic grades, the breakdown for the three subjects is as follows:

Financial Management	Score
Group 1	7
Group 2	10
Group 3	8

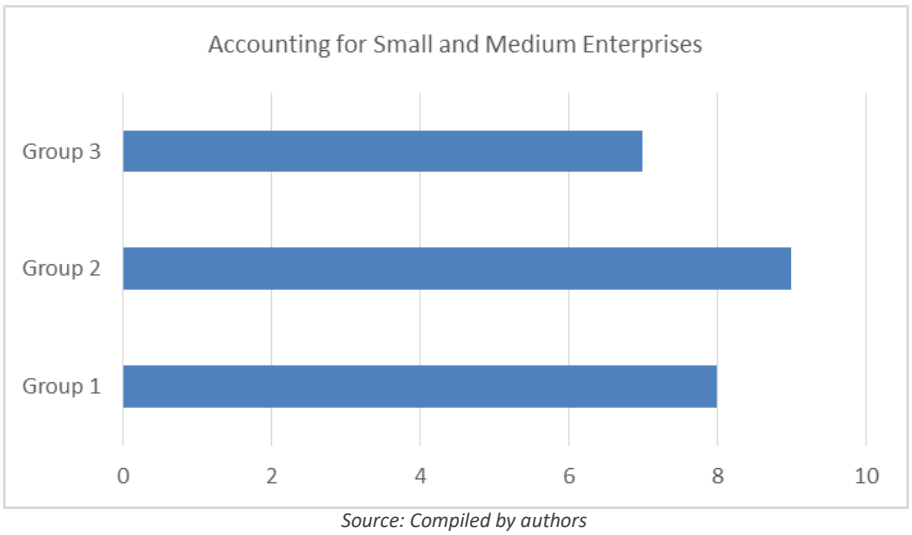
Figure 1: Financial Management score



Source: Compiled by authors

Accounting for SMEs	Score
Group 1	8
Group 2	9
Group 3	7

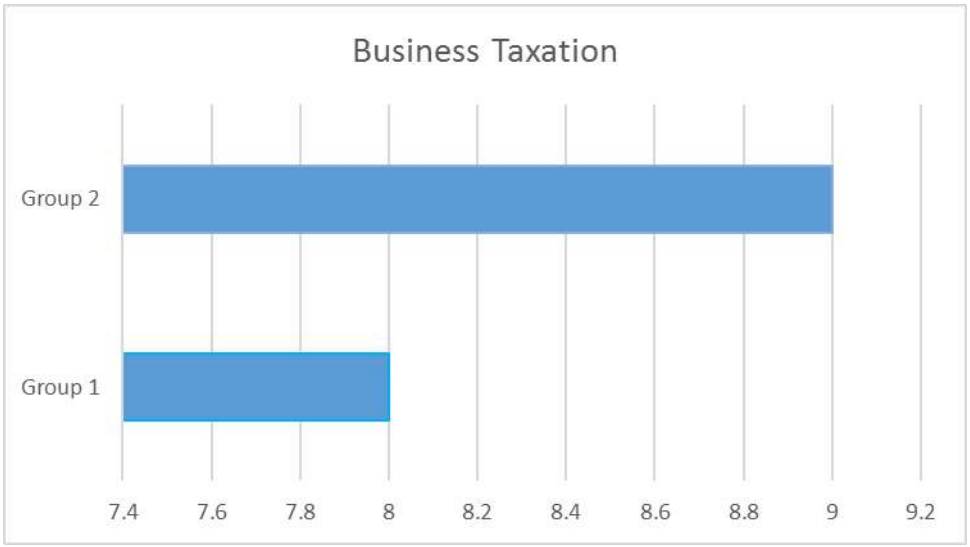
Figure 2: Financial Management score



Source: Compiled by authors

Business Taxation	Score
Group 1	8
Group 2	9

Figure 3: Business Taxation score



Source: Compiled by authors

The average score for the activity in the three subjects was 8.25 out of 10. We attribute this significantly high score to the students' high level of acceptance, commitment and performance.

ASSESSING THE EXPERIENCE

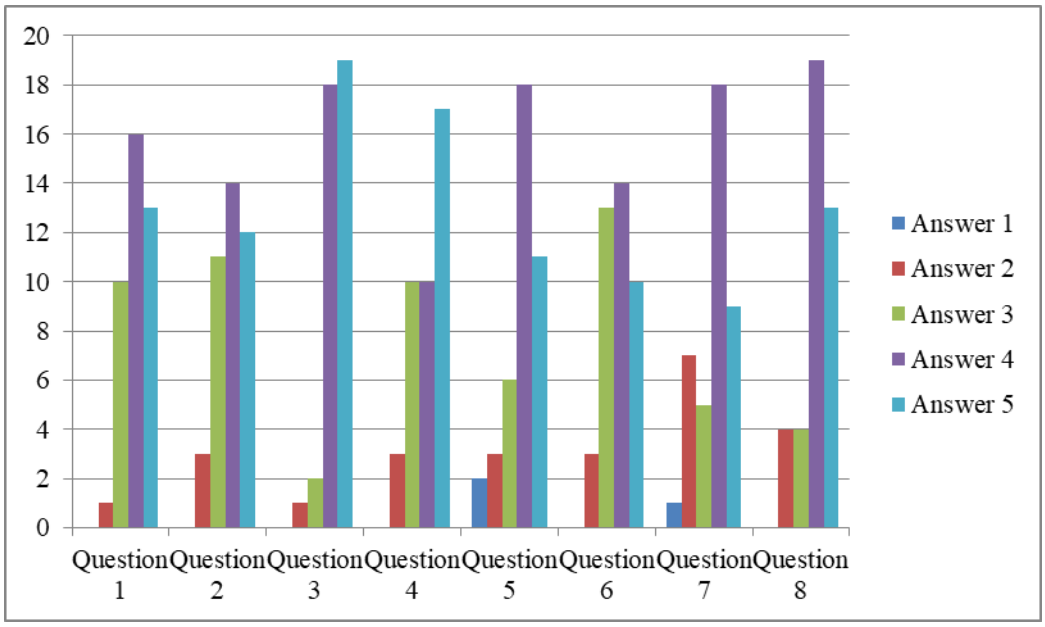
In order to find out the students' assessment of the completed activity, we used a survey to gather their impressions and opinions of various aspects. The survey was designed by researchers participating in two research projects funded by Universidad Europea de Madrid (UEM): "Creation of an Active Classroom through Flipped Classroom: Dynamization" and "Creation of an Active Classroom through Flipped Classroom: New Technologies". The survey has been used to measure the results of the investigations of both projects, from 2014 to 2017. Based on all the above, it was considered appropriate to assess student acceptance of the Flipped Classroom methodology.

The survey relates to the performance of the activity and the competencies it aims to develop. It also provides an additional free space for students to comment on the following: the best part of the activity; the most complicated part; what they would add; and what they would eliminate.

The survey was conducted with a total sample of 40 students. This survey consisted of a Likert scale numbered from 1 to 5, with 1 being the lowest score and 5 the highest one.

The results obtained for the different items are as follows:

Figure 4: Results of the activity assessment survey



Source: Compiled by authors

1) The information that I received on the objectives being pursued with this methodology was:
   72.5% of the students gave a score of 4 or 5.
2) The information that I received on the competencies being pursued with this methodology was:
   65% of the students gave a score of 4 or 5.
3) The information that I received on the evaluation system of the activities performed with this methodology was:
   92.5% of the students gave a score of 4 or 5.
4) The information that I received about the activities that must be performed with this methodology was:
   67% of the students gave a score of 4 or 5.
5) The information that I received about how to perform the activities using this methodology was:
   72.5% of the students gave a score of 4 or 5.
6) With this methodology I have learned:
   60% of the students gave a score of 4 or 5.

7) I believe that with this methodology I learned more.
67.5% of the students gave a score of 4 or 5.

8) I believe that with this methodology I had to work more.
80% of the students gave a score of 4 or 5.

The satisfactory responses that were above average (3), i.e. with a score of 4 or 5, represent the majority in all items.

Conclusions

Adaptation to the EHEA requires additional efforts from both professors and students, but the results for both parties can be very rewarding. The "Cross-cutting activity in the Flipped Classroom environment: Consultancy in the Classroom", seeks to enrich the comprehensive education of the student through an efficient procedure based on the inversion of the work performed. In order to achieve this, the work performed must be compensated with results that are acceptable with respect to those attained through other techniques. In principle, students enrich their knowledge of three different subjects and receive an introduction to the characteristic dynamics of a company by participating in a consultancy in which three departments would intervene. In addition, they interrelate content among different courses and detect synergies among the three disciplines, making them better prepared for the professional world.

This activity has aspects in common with work carried out by Phillips and Trainor (2014) and Howe and Strauss (2007) focusing on millennial students. These students have not known a world without computers, and do not see these technologies as tools, but rather as part of their daily lives. According to Phillips and Trainor (2014, p.103), these students "are always connected, expect immediate / instant access and responses, and have a preference for experiential and engaging learning environments". So, these authors consider that the flipped classroom could be an effective method of engaging future students from the millennial generation; they prefer active learning to reading and respond positively to the audio-visual content in their subjects. Along the same lines, Roehl et al. (2013) see active learning as a way to engage millennial students. Following these authors, we have designed the "Cross-cutting activity in the Flipped Classroom environment: Consultancy in the Classroom" as a team-oriented activity based on learning by doing.

Seeking to improve the involvement of this type of millennial student in the classes, we carried out this activity and found that it allows us to improve the traditional class through an inverted class, as Berrett (2012) and Tucker (2012) point out; and, following Skoza (2013) and Walsh (2013b), we have obtained improvements in teaching results.

Through this activity, in which the student can investigate and compare investment modalities by combining three points of view –financial, accounting and tax–, we have noticed that the methodology enables the student to perceive a significant improvement in the quantity and quality of the information, as shown by the results of survey items 1 to 5. Moreover, the student perceives a greater fixation of knowledge, as highlighted by the results of items 6 and 7. We believe this is due to the active and cross-cutting nature of the learning process, which leads to greater student satisfaction. Finally, the students feel that this methodology has meant they have worked harder (item 8). In short, "Consultancy in the Classroom" is an activity that incorporates an innovative "3 to 3" component –conducted in and across three different courses–, applies an original active methodology in keeping with the preferences of current students, and centres on resolving a real case through group dynamics, which leads to greater student involvement. All of which, as the results of the survey show, makes this activity an effective method of engaging the students from the millennial generation.

Regarding the students' perception of the activity, they reported a high degree of satisfaction, both in terms of its approach and the enhancement of the competencies and their usefulness in terms of learning.

Based on the obtained experience and in line with the possible disadvantages pointed out by Jordán, Pérez and Sanabria (2014), it should be noted that the application of Flipped Classroom has involved a great effort on the part of professors. The workload has increased as a result of the creation of materials and the adaptation of the syllabuses, as well as the adequate monitoring of the evolution of student learning.

In view of the results obtained, we believe they could be extrapolated to other groups and to other degree programmes. Therefore, we propose future lines of research that, by applying a similar methodology, would allow their results to be compared with those obtained in the present study. We also suggest that the "challenge-based learning" methodology could be incorporated into the inverted classroom with the aim of testing and verifying the effectiveness of competency development. Practical workshops in higher education can be configured as spac-

es of experiential learning, where real individuals or entities can explain their needs to the students, who respond by playing an advisory role as if they were professional consultants. In this way, it is possible to achieve the three models of approach to teaching and knowledge about teaching: empirical, professional, and specialized technique (Zabalza, 2003). The School of Social Sciences and Communication at UEM is conducting an educational experience in which the "challenge-based learning" methodology is applied through the “Consulting Lab” for the Degree in Marketing and the Degree in Business Management and Entrepreneurship. These experiences take place within a mixed academic context in which students are actively engaged in their education, assuming responsibilities and playing a central role in their own learning (Whitehead, 2008).

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Annex

Assumed statement of activity

The corporate purpose of TRP, S.A. is garden design and maintenance. They need to acquire an "ALFA" tanker truck, whose cash price is 40,000 euros, to transport recycled water for irrigation. Consequently, they have come to C&Q who provide financial services to study the desirability of acquiring the vehicle through renting.

C&Q has submitted two simulations of quotes and two financial tables for TRP, S.A., to consider the option of renting the truck.

Simulation 1

Contract signature date: November 1, 2018. Fair value of the asset: 40,000 euros.

Payment period of the instalments: monthly for 48 months.

Type of instalment: prepayable including interest, registration, fully comprehensive insurance, roadside assistance, and maintenance and repair. Instalments calculated on the basis of an estimate of travel per year of 50,000 kilometres without imposing ceilings on annual mileage.

Amount of the instalment without VAT: 934.73 euros. VAT fee: 196.29 euros.

Amount of the instalment with VAT: 1,131.02 euros. Interest rate: 6% per annum.

Useful life of the asset: 4 years.

Table 3: Simulation 1

Period payment	0.50% Interest	Amortization principal	Instalment	Type of tax	fee VAT	Amount payment	Capital outstanding
11/1/2018	0.00	934.73	934.73	21%	196.29	1,131.02	39,065.27
12/1/2018	195.33	739.40	934.73	21%	196.29	1,131.02	38,325.87
1/1/2019	191.63	743.10	934.73	21%	196.29	1,131.02	37,582.77
2/1/2019	187.91	746.82	934.73	21%	196.29	1,131.02	36,835.95
3/1/2019	184.18	750.55	934.73	21%	196.29	1,131.02	36,085.40
4/1/2019	180.43	754.30	934.73	21%	196.29	1,131.02	35,331.10
5/1/2019	176.66	758.07	934.73	21%	196.29	1,131.02	34,573.02
6/1/2019	172.87	761.86	934.73	21%	196.29	1,131.02	33,811.16
7/1/2019	169.06	765.67	934.73	21%	196.29	1,131.02	33,045.48
8/1/2019	165.23	769.50	934.73	21%	196.29	1,131.02	32,275.98
9/1/2019	161.38	773.35	934.73	21%	196.29	1,131.02	31,502.63
10/1/2019	157.51	777.22	934.73	21%	196.29	1,131.02	30,725.41
11/1/2019	153.63	781.10	934.73	21%	196.29	1,131.02	29,944.31
12/1/2019	149.72	785.01	934.73	21%	196.29	1,131.02	29,159.30
1/1/2020	145.80	788.93	934.73	21%	196.29	1,131.02	28,370.37
2/1/2020	141.85	792.88	934.73	21%	196.29	1,131.02	27,577.49
3/1/2020	137.89	796.84	934.73	21%	196.29	1,131.02	26,780.65
4/1/2020	133.90	800.83	934.73	21%	196.29	1,131.02	25,979.82
5/1/2020	129.90	804.83	934.73	21%	196.29	1,131.02	25,174.99
6/1/2020	125.87	808.86	934.73	21%	196.29	1,131.02	24,366.13
7/1/2020	121.83	812.90	934.73	21%	196.29	1,131.02	23,553.24
8/1/2020	117.77	816.96	934.73	21%	196.29	1,131.02	22,736.27
9/1/2020	113.68	821.05	934.73	21%	196.29	1,131.02	21,915.22
10/1/2020	109.58	825.15	934.73	21%	196.29	1,131.02	21,090.07
11/1/2020	105.45	829.28	934.73	21%	196.29	1,131.02	20,260.79
12/1/2020	101.30	833.43	934.73	21%	196.29	1,131.02	19,427.36

1/1/2021	97.14	837.59	934.73	21%	196.29	1,131.02	18,589.77
2/1/2021	92.95	841.78	934.73	21%	196.29	1,131.02	17,747.99
3/1/2021	88.74	845.99	934.73	21%	196.29	1,131.02	16,902.00
4/1/2021	84.51	850.22	934.73	21%	196.29	1,131.02	16,051.78
5/1/2021	80.26	854.47	934.73	21%	196.29	1,131.02	15,197.31
6/1/2021	75.99	858.74	934.73	21%	196.29	1,131.02	14,338.56
7/1/2021	71.69	863.04	934.73	21%	196.29	1,131.02	13,475.53
8/1/2021	67.38	867.35	934.73	21%	196.29	1,131.02	12,608.17
9/1/2021	63.04	871.69	934.73	21%	196.29	1,131.02	11,736.49
10/1/2021	58.68	876.05	934.73	21%	196.29	1,131.02	10,860.44
11/1/2021	54.30	880.43	934.73	21%	196.29	1,131.02	9,980.01
12/1/2021	49.90	884.83	934.73	21%	196.29	1,131.02	9,095.18
1/1/2022	45.48	889.25	934.73	21%	196.29	1,131.02	8,205.93
2/1/2022	41.03	893.70	934.73	21%	196.29	1,131.02	7,312.23
3/1/2022	36.56	898.17	934.73	21%	196.29	1,131.02	6,414.06
4/1/2022	32.07	902.66	934.73	21%	196.29	1,131.02	5,511.40
5/1/2022	27.56	907.17	934.73	21%	196.29	1,131.02	4,604.22
6/1/2022	23.02	911.71	934.73	21%	196.29	1,131.02	3,692.52
7/1/2022	18.46	916.27	934.73	21%	196.29	1,131.02	2,776.25
8/1/2022	13.88	920.85	934.73	21%	196.29	1,131.02	1,855.40
9/1/2022	9.28	925.45	934.73	21%	196.29	1,131.02	929.95
10/1/2022	4.65	930.08	934.73	21%	196.29	1,131.02	-0.13
TOTAL	4,866.91	40,000.13	44867.04		9,422.08	54,289.12	

Source: Compiled by authors

Table 4: Simulation 2

Period payment	0.50% Interest	Amortization of principal	Instalment	Type of tax	Fee VAT	Amount payment	Capital outstanding
11/1/2018	0.00	467.37	467.37	21%	98.15	565.51	19,532.63
12/1/2018	97.66	369.70	467.37	21%	98.15	565.51	19,162.93
1/1/2019	95.81	371.55	467.37	21%	98.15	565.51	18,791.38
2/1/2019	93.96	373.41	467.37	21%	98.15	565.51	18,417.97
3/1/2019	92.09	375.28	467.37	21%	98.15	565.51	18,042.69
4/1/2019	90.21	377.15	467.37	21%	98.15	565.51	17,665.54
5/1/2019	88.33	379.04	467.37	21%	98.15	565.51	17,286.51
6/1/2019	86.43	380.93	467.37	21%	98.15	565.51	16,905.57
7/1/2019	84.53	382.84	467.37	21%	98.15	565.51	16,522.74
8/1/2019	82.61	384.75	467.37	21%	98.15	565.51	16,137.98
9/1/2019	80.69	386.68	467.37	21%	98.15	565.51	15,751.31
10/1/2019	78.76	388.61	467.37	21%	98.15	565.51	15,362.70
11/1/2019	76.81	390.55	467.37	21%	98.15	565.51	14,972.15
12/1/2019	74.86	392.50	467.37	21%	98.15	565.51	14,579.65

1/1/2020	72.90	394.47	467.37	21%	98.15	565.51	14,185.18
2/1/2020	70.93	396.44	467.37	21%	98.15	565.51	13,788.74
3/1/2020	68.94	398.42	467.37	21%	98.15	565.51	13,390.32
4/1/2020	66.95	400.41	467.37	21%	98.15	565.51	12,989.90
5/1/2020	64.95	402.42	467.37	21%	98.15	565.51	12,587.49
6/1/2020	62.94	404.43	467.37	21%	98.15	565.51	12,183.06
7/1/2020	60.92	406.45	467.37	21%	98.15	565.51	11,776.61
8/1/2020	58.88	408.48	467.37	21%	98.15	565.51	11,368.13
9/1/2020	56.84	410.52	467.37	21%	98.15	565.51	10,957.61
10/1/2020	54.79	412.58	467.37	21%	98.15	565.51	10,545.03
11/1/2020	52.73	414.64	467.37	21%	98.15	565.51	10,130.39
12/1/2020	50.65	416.71	467.37	21%	98.15	565.51	9,713.68
1/1/2021	48.57	418.80	467.37	21%	98.15	565.51	9,294.88
2/1/2021	46.47	420.89	467.37	21%	98.15	565.51	8,873.99
3/1/2021	44.37	423.00	467.37	21%	98.15	565.51	8,450.99
4/1/2021	42.25	425.11	467.37	21%	98.15	565.51	8,025.88
5/1/2021	40.13	427.24	467.37	21%	98.15	565.51	7,598.65
6/1/2021	37.99	429.37	467.37	21%	98.15	565.51	7,169.28
7/1/2021	35.85	431.52	467.37	21%	98.15	565.51	6,737.76
8/1/2021	33.69	433.68	467.37	21%	98.15	565.51	6,304.08
9/1/2021	31.52	435.84	467.37	21%	98.15	565.51	5,868.24
10/1/2021	29.34	438.02	467.37	21%	98.15	565.51	5,430.21
11/1/2021	27.15	440.21	467.37	21%	98.15	565.51	4,990.00
12/1/2021	24.95	442.42	467.37	21%	98.15	565.51	4,547.58
1/1/2022	22.74	444.63	467.37	21%	98.15	565.51	4,102.96
2/1/2022	20.51	446.85	467.37	21%	98.15	565.51	3,656.11
3/1/2022	18.28	449.08	467.37	21%	98.15	565.51	3,207.02
4/1/2022	16.04	451.33	467.37	21%	98.15	565.51	2,755.69
5/1/2022	13.78	453.59	467.37	21%	98.15	565.51	2,302.11
6/1/2022	11.51	455.85	467.37	21%	98.15	565.51	1,846.25
7/1/2022	9.23	458.13	467.37	21%	98.15	565.51	1,388.12
8/1/2022	6.94	460.42	467.37	21%	98.15	565.51	927.69
9/1/2022	4.64	462.73	467.37	21%	98.15	565.51	464.97
10/1/2022	2.32	465.04	467.37	21%	98.15	565.51	-0.07
TOTAL	2,433.45	20,000.07	22433.52		4,711.04	27,144.56	

Source: Compiled by authors

SIMULATION 2

Contract signature date: November 1, 2018.

Fair value of the asset: 40,000 euros.

Payment period of instalments: monthly for 48 months.

Type of instalment: prepayable including interest, registration, fully comprehensive insurance, roadside assistance, and maintenance and repair, calculated on the basis of an estimate of annual travel to a maximum of 25,000 kilometres.

Amount of the instalment without VAT: 467.37 euros. VAT fee: 98.15 euros.

Amount of the instalment with VAT: 565.51 euros. Interest rate: 6% per annum.

Economic life of the asset: established on the basis of 200,000 kilometres.

After receiving the two previous simulations, doubts have arisen at TRP, S.A. about the impact of the decision to be made, so they turn to the Consultancy U&E, which is preparing to study the financial, accounting and tax implications and subsequently issue a report to assist the client in their decision-making process. The Financial Department's report has just arrived, so the Accounting Department is preparing to work, for each simulation and for the duration of the contract, in accordance with these guidelines:

1) Identify whether the objective of the operation corresponds to an operating lease or a financial lease based on the 7th Rule of Registration and Valuation "Leases and other operations of a similar nature" contained in the General Accounting Plan for SMEs.
2) Record the accounting events that arise from the type of lease identified in the previous point.
3) Calculate the effect on the Profit and Loss Account and on the Balance Sheet.
4) Issue a report to be delivered to the Tax Department.