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Research notes

Students' perceptions of the lecturer's role in management education: Knowledge acquisition and competence development

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ABSTRACT

Based on the need for new paradigms fostered by the European higher education framework, this study explores the influence of the lecturer's role on knowledge acquisition and competence development in undergraduate management students. The lecturer's role is analyzed through students' perceptions of the lecturer's ability to build a good relationship and use appropriate teaching methods. This analysis is conducted from the perspective of student-centered learning and theoretical approaches that have emerged in the business field that show a conceptual affinity: the transfer of training and knowledge. Data were collected from 145 undergraduate students studying management courses in a Spanish university. The results indicate that the perceived ability of the lecturer to create a good relationship with students positively influences their perception the suitability of the teaching methods used, and the suitability of these methods, in turn, influences the students' level of knowledge acquisition and competence development.

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1. Introduction

The creation of the European Higher Education Area (EHEA) has prompted the need to advance the understanding of knowledge acquisition and competence development and the methods that can encourage them. In fact, this is one of the major challenges faced by European universities in recent years, but it also represents a 'magnificent opportunity for universities to undertake a reform process that will enable them to adapt to the current social reality, the so-called Knowledge Society' (Montero Curiel, 2010, p. 21). Currently, many European universities are undergoing a process of change in which the development of students' competences becomes the central axis to articulate the teaching-learning process, apart from the basic knowledge that the student also needs to acquire.

In the education context, competences can be viewed as the talents, skills and capabilities that graduates will have, and that will contribute to productivity gains (García Aracil, Mora, & Vila, 2004). The EHEA strongly fosters competence development as a way to ensure education's effectiveness and maximize the efficiency of schooling. In this sense, many higher educational institutions are now developing increasingly close collaboration ties with companies, in order to investigate the extent to which graduates are able to transfer skills and knowledge to the workplace (Green, 2013). Thus, and according to

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Botma, Van Rensburgb, Coetzeec, and Heyns (2015, p. 499), "transfer of learning is demonstrated by a competent student", but competencies are not always observed in graduates' behavior because transfer of learning is not an assured outcome of the educational process. This concern is also present in the field of education in Western countries, where the transfer of learning, understood as the application of knowledge and skills to new contexts, has "an eminent role in education", although it is not exempt from criticism if it is considered the only purpose of education (Green, 2013). However, research on learning transfer is still necessary, specifically about learning environments where the knowledge and skills acquired by students can later be transferred to environments other than education (Burke, Jones, & Doherty, 2005).

Some authors in the field of higher education are concerned about overcoming the idea of an autonomous university and closely analyzing the relationships among society, business, and the academic world (e.g., Tynjälä, Välimaa, & Sarja, 2003). These efforts have focused on the analysis of the relationship between higher education and the knowledge society (Vallima & Hoffman, 2008). In the field of business management, the development of competences has been associated with knowledge management and training. Both of these areas of business management are interested in transmitting knowledge and skills between units and employees in order to achieve better human capital that can do things better or in different ways. Along these lines, although the impact of higher education on personal development cannot be compared with that of training programs, due to the short-term nature of the latter (Vallima & Hoffman, 2008), the analysis of the relationship between higher education and working life could help to define the identity of higher education institutions (Tynjälä et al., 2003).

In order to improve knowledge acquisition and competence development, several factors can be considered, due to the significant influence they can have on these aspects. According to Kember (2009), the role of the lecturer is the key to designing and guiding learning activities. On the other hand, innovative methodologies play a key role in competence development (Salas Velasco, 2014), and the suitability of these methodologies facilitates learning. Moreover, the relationship between the lecturer and the student makes it possible to adapt the method to the required learning needs. Although we acknowledge the relevance of the specific effects that teaching strategies may have on knowledge acquisition and competence development, we are particularly interested in the student's subjective overall assessment of the role of the lecturer in the learning process. The role of the student has taken on a special significance because s/he is now the driver of his/her own learning, and the lecturer becomes an instructor who helps the student to study and find solutions to the different problems s/ he may face (Montero Curiel, 2010). The change in methodology has made it necessary to rethink learning activities, materials and contexts, and above all, it has required a change in mentality and routines on the part of the lecturer and the student.

Therefore, the student's perspective is fundamental to knowledge acquisition and competence development. In this sense, 'serious misunderstandings are likely if teaching staff are unaware of the ways in which students experience higher education' (Richardson & Radloff, 2015, p. 605). However, students' perception of their own learning is not the same as knowledge acquisition and competence development. Thus, it should not be regarded as an indicator of students' learning or actual performance (e.g., Armstrong & Fukami, 2010; Kruger & Dunning, 1999; Sundström, 2005). Instead, it is an affective learning measure based on a student-centered learning perspective that involves students' attitudes, convictions, and confidence levels about the learning objectives (Armstrong & Fukami, 2010; Giacalone & Promislo, 2013; Sitzmann, Ely, Brown, & Bauer, 2010). In this regard, students' perceptions of their own learning is an evaluation criterion in disciplines such as business, education, and psychology (Dobransky & Frymier, 2004; Lim & Morris, 2006). It is commonly used at the end of a course, when students are asked to rate their own perceived levels of comprehension (Walczyk & Hall, 1989), competence (Carrell & Willmington, 1996), and performance (Quiñones, 1995).

Taking these considerations into account, the main purpose of this study is to investigate the influence of students' perceptions about the role of the lecturer on the knowledge acquisition and competence development of undergraduate management students. Thus, the paper contributes to the analysis of knowledge acquisition and competences development in the area of management education from the point of view of training transfer, adopted from the field of management (e.g., Botma et al., 2015). There is a conceptual similarity between areas of business management related to the transfer of knowledge acquisition and competences development of knowledge acquisition and competences development of higher education students, based on theoretical approaches to the analysis of professional competences in the business field, as there seem to be important connections between them (Riesco González, 2008). In particular, the article proposes an integrated model that analyzes direct and indirect influences of the lecturer's role on the independent variables.

In order to achieve the aims of this study, this paper is structured as follows. After this introduction, sections two and three present and justify the theoretical model used to conduct this research. Subsequently, section four explains the methodological aspects of the research and the results obtained, and, finally, section five presents the conclusions and limitations of the study, respectively.

2. Knowledge acquisition and competence development in management education

Education is relevant because it allows students to learn and acquire skills and knowledge that will fundamentally shape their behavior (Haveman & Wolfe, 1984). The right acquisition of the right knowledge by students enables them to perform activities and face their professional careers with a more successful approach. Higher education has a qualifying function for the world of work and some other personal spheres, and it is responsible for knowledge transmission and for providing an environment that is conducive to enhancing students' competences (Teichler, 2007).

In the context of the EHEA, the concept of competence has been shown to be a cornerstone of the success of the education process. Competence can be understood as a behavioral potential adapted to a given situation (De Miguel Díaz, 2006). Therefore, learning outcomes should be a set of competences, with each of them including knowledge and skills that the student is expected to dominate and use in an environment different from the learning context (González & Wagenaar, 2003). In this regard, several authors argue that the educational context is now broader, and students should be capable of handling knowledge, updating it, and selecting what is appropriate for any given context (e.g., Fernández, Carballo, & Galán, 2010; González & Wagenaar, 2003). In this regard, Botma et al. (2015, p. 501) consider that, based on constructivist approaches to learning and experiential learning theory, the debate on learning outcomes "has shifted from content to competence".

An important aspect to consider is that the concept of competence in education is strongly linked to professional competence, which may be defined as an effective capacity to successfully carry out a fully identified working activity (Riesco González, 2008). In fact, as Tynjälä et al. (2003) pointed out, the differences between school learning and workplace learning are becoming more diffuse. This is reflected by the fact that in recent years the role of universities has gained prominence in corporate training programs, and new pedagogical models (e.g., problem-based learning, collaborative learning) used in higher education have characteristics that simulate authentic working life situations (Tynjälä et al., 2003).

Moreover, the students' competence development can be analyzed from the perspective of knowledge transfer, but always keeping in mind that learning cannot be defined as a mere transmission of knowledge (Fernández et al., 2010). Knowledge transfer is one of the central processes of knowledge management, along with knowledge creation (Nonaka & Takeuchi, 1995). Knowledge management can be conceptualized as the panoply of procedures and techniques used to get the most from an organization's knowledge assets (Teece, 2000). Davenport and Prusak (1998) offer a definition of knowledge transfer that involves two actions: transmission (sending or presenting knowledge to a potential recipient) and absorption by the recipient. Likewise, Brachos, Kostopoulos, Soderquist, and Prastacos (2007, p. 32) consider that 'knowledge transfer actually occurs when received knowledge is used by recipients and this use results in changing their behavior'.

As this discussion has attempted to show, the processes described by the literature on training and knowledge management have many connections with the educational process. These literatures agree that the key to success is for the student to change his/her behavior by acquiring knowledge and the skills to be able to do something with it: in other words, s/ he develops a set of competences. However, they also agree that in order for this to happen, the student must previously have assimilated this knowledge. These arguments lead us to propose the first hypothesis:

H1. The level of knowledge acquisition achieved by the student will be positively associated with his/her competence development.

3. The lecturer's role in knowledge acquisition and competence development in management education

Students' more important role in their own learning does not mean that the lecturer's role is less important or easier (Fernández et al., 2010). As Botma et al. (2015) suggest, when there is a failure to transfer learning, graduates are unable to show the needed competences. This can occur for several reasons: the failure may be related to the student's characteristics and circumstances, the educational process, or even particularities of the work environment. This article analyzes the lecturer's intervention to facilitate students' development of valuable competences. Botma et al. (2015) point out that the lecturer has to be a facilitator of learning based on the constructivist approach, and s/he has to create learning opportunities that allow students to process and internalize new information and knowledge. Richardson and Radloff (2015) highlight that if students think the teaching staff is not trying to identify student's needs and interests, this will negatively affect their engagement with what they are studying. In fact, university lecturers face the challenge of revisiting their traditional teaching methods, working toward a system where the student is capable of using the knowledge and skills transmitted during the course in carrying out specific activities (Kember, 2009). However, this can be a demanding task for lecturers because of their deep-seated beliefs about their role in the teaching process (Kember, 2009). In addition, it should be noted that, according to Burke et al. (2005), the lecturer's teaching style is one of the variables that has to be taken into account when investigating the conditions for learning transfer.

The role of the lecturer will be examined from the perspective of the bodies of literature mentioned above. It should be noted that the teaching capacity is a multidimensional concept with different facets, such as communication skills and clarity, course organization, student-lecturer interactions, or the lecturer's interest in the course (Nguyen & Nguyen, 2010). Specifically, the role of the lecturer as a manager of relevant aspects of the link that he/she establishes with the students will be studied, along with the suitability of the teaching methods s/he chooses for the course.

3.1. Ability to create a good relationship

Although the context of the lecturer in management courses in higher education and that of the trainer in intra- and interorganizational management courses have some distinctive features, their role has some core similarities that make it possible to bring to this discussion some ideas from the management training literature, where it has already been addressed. Thus, in the framework of management training programs, the responsibility for creating an appropriate environment, in terms of interpersonal relations that facilitate the exchange of information, falls to the trainer. The trainer can project him/herself as a guide or facilitator, creating a climate that reduces trainees' feelings of stress, hostility, and even fear of being open and friendly with the trainer and other trainees (Murk, Barrett, & Atchade, 2000). The literature on knowledge transfer has also paid particular attention to the relationships established between the parties involved in this process. A fluid relationship may play an important role because it can help to overcome mistakes, forget-fulness, or distractions that may arise when planning knowledge transfer, and that become obvious as the implementation stage develops (Szulanski, 2000). A good relationship between the parties can also produce a willingness to submit detailed documentation that collects part of their accumulated knowledge (Szulanski, 2000). On the other hand, a difficult or tense relationship is one of the main barriers to internal knowledge transfer (Argote, McEvily, & Reagans, 2003; Hansen, 1999; Szulanski, 1996). Both parties have to work to maintain a good, close relationship, as only this type of relationship provides value because it is necessary for the flow and acquisition of tacit knowledge (Ratten & Suseno, 2006). In this regard, Wathne, Roos, and Von Krogh (1996) confirm the positive influence of the willingness to enter into dialogue on knowledge transfer.

In the context of a university course, the relationship between the lecturer and the student is based on the student's opportunities to interact with the lecturer and the student's participation in class by asking questions, expressing ideas, and debating in the classroom (Kember, 2009; Nguyen & Nguyen, 2010). A high quality relationship between the lecturer and the students can lead to a better analysis of each specific situation, making it possible to intervene by better adapting the teaching methods used to transmit knowledge and skills (De Miguel Díaz, 2006). The better the lecturer-student relationship, the more the lecturer can help the student to understand the knowledge to be transferred from a conceptual point of view. In addition, if the lecturer has the ability to build a good relationship with the student, this can lead to the student achieving an enhanced capacity to process the knowledge acquired and select what is most appropriate in each context, thus completing specific activities. These arguments lead us to propose the following hypotheses:

H2. The lecturer's ability to create a good relationship will be positively associated with the students' level of knowledge acquisition.

H3. The lecturer's ability to create a good relationship will be positively associated with the students' competence development.

3.2. Suitability of teaching methods chosen

The other element to be studied in relation to the lecturer's role was presented in the discussion above. The consolidation of the EHEA has opened up a debate on the renewal of teaching methods (e.g., master classes, class discussions, role-play exercises, case studies). The lecturer should ensure that the methods used are the most appropriate ones for the student to assimilate the new knowledge and develop the competences established in the curriculum.

The training literature has highlighted the need to consider aspects related to the design of the training plan as a key element that will affect the success of knowledge learning and transfer (Arthur, Bennett, Edens, & Bell, 2003; Lim & Johnson, 2002; Lim & Morris, 2006). Teaching methods must present the knowledge and skills to be learned, create opportunities for the students to practice skills and participate actively in the learning process, and, lastly, provide feedback (Salas & Cannon-Bowers, 2001). The use of different teaching methods can foster higher levels of reflection, leading to deeper information processing by the trainees (Salas & Cannon-Bowers, 2001). In the more interactive formats of traditional classes, such as case studies, the lecturer guides the discussion and helps participants to discover new key concepts and practices (Baird, Griffin, & Henderson, 2003). In sum, the degree of suitability of the teaching methods largely determines the effective assimilation of the contents by the students (Arthur et al., 2003; Wells & Schminke, 2001).

However, the training design can also provide the trainee with information about how to develop the selected competences. Training can be designed in a way that provides trainees with the capacity to transfer the learned knowledge and skills to the workplace. In order to facilitate training transfer, some studies have emphasized the need to adapt the training context to the one where the knowledge and skills will be applied (e.g., Lim & Johnson, 2002; Machin & Fogarty, 2003). Thus, training programs that create different contexts for the discussion and application of training contents can help the individual to show the expected behavior (Lim & Johnson, 2002; Machin & Fogarty, 2003).

The suitability of the teaching methods can also be analyzed from the perspective of the literature on knowledge transfer. Thus, each specific transfer process, due to its conditions (type of knowledge, source, and recipient characteristics, etc.), requires the use of one or more specific transfer mechanisms that may not be suitable in different situations (Davenport & Prusak, 1998; Wathne et al., 1996). The level of interaction between the parties generated by the transfer mechanism is a key element to analyze when determining its suitability (Davenport & Prusak, 1998). Methods that favor relationships and exchanges among participants include group discussions, which allow for face-to-face interactions, as well as frequent exchanges of information (Wathne et al., 1996). The transfer mechanisms should also allow positive interactions between the parties that allow good communication and the resolution of doubts about knowledge application (Nonaka, Toyama, & Konno, 2000).

These arguments can also be contextualized within the framework of higher education to show that when teaching methods are combined properly, they can favor students' knowledge acquisition and competence development. The choice of teaching method involves defining the way the contact between the student and the contents will take place. If the lecturer achieves an ideal combination of various teaching methods, s/he will create a more favorable framework for student learning. The lecturer has various teaching methods at his/her disposal and must organize his/her work specifically to help students to achieve the learning objectives and develop the intended competences, and this can involve choosing and designing activities

and tasks for the students (Fernández et al., 2010). Moreover, a fluid relationship with students makes it possible to obtain additional data about their characteristics, providing a solid base for choosing the combination of teaching methods to be used in the course. These arguments lead us to propose the final hypotheses in this study:

H4. The lecturer's ability to create a good relationship will be positively associated with the suitability of the teaching methods chosen.

H5. The suitability of the teaching methods used will be positively associated with the students' level of knowledge acquisition.

H6. The suitability of the teaching methods used will be positively associated with the students' competence development.

4. Methodology

4.1. Data

The context of this study was a Spanish university. In 2014–2015, there were 83 universities in Spain, 50 of them public institutions, and the remaining 33 privately-owned. Students often enter the university in Spain right after high school/ college when they are 18/19 years old, or a year older if they enter it after vocational training. The Spanish university system, like many others in Europe, has experienced a thorough overhaul in recent years (Masjuan & Troiano, 2008), due to the implementation of the so-called Bologna principles. Based on these principles, the creation of the European Higher Education Area required the evolution from a lecturer-centered approach to a student-centered approach (García-Almeida, Hernández-López, Ballesteros, & De Saá-Pérez, 2012; Tam, 2014). This process created uncertainty and problems because some university lecturers complained that they lacked the in-depth pedagogical knowledge needed to implement these changes, and budgetary constraints limited expert support.

The data were obtained from a survey carried out in the second year of the degree in business administration in a compulsory management course. The topics addressed in this course mainly dealt with organizational behavior and management skills. There were four lecturers to teach this course to the six groups of students. The number of students enrolled was 324, and they were assigned by alphabetical order to the six groups. The pedagogical approach used in this course included a combination of traditional lectures, discussion of examples, videos, case studies, role-playing exercises, debates, jigsaws, and student presentations. The coordination among the lecturers was quite intense, as a weekly session was held to plan the content and the specific activities for the sessions of the following week during the whole term. The teaching process and activities were standardized to a large degree, with common slides, solutions to case studies and exercises, and guidelines for the activities.

In order to ensure confidentiality and avoid pressure or bias, a research assistant organized the data collection from the students. The data collection took place in the final session of the semester, where doubts and questions were raised, before the exam took place and after the lecturers left the classrooms. All the students were invited to participate in the study, and so a self-selected sample was obtained. The questionnaires were self-administered, and participation in the survey was voluntary, although students were encouraged to participate because the findings would be used to improve the teaching

Respondent description.				
Characteristic	Dimension	N of respondents	% of respondents	
Age	Under 20	69	47.6	
	From 20 to 35	75	51.7	
	Over 35	1	0.7	
	Total	145	100	
Gender	Male	42	29	
	Female	103	71	
	Total	145	100	
Retaking course	Yes	8	5.9	
	No	128	94.1	
	Total	136	100	
Mode of university entrance	High school/College	122	84.1	
	Upper cycle of vocational education	21	14.5	
	Over 25 years old	1	0.7	
	Other university studies	1	0.7	
	Total	145	100	
Current studies as the first career choice	Yes	104	74.3	
	No	36	25.7	
	Total	140	100	
Work	Yes	18	12.6	
	No	125	87.4	
	Total	143	100	

Table 1

process in the course. In all, 151 questionnaires were collected. Finally, the number of valid questionnaires used in the study was 145, after removing questionnaires with missing values and outliers.

The profile of the students who provided valid questionnaires appears in Table 1. Most of the students (51.7%) were aged between 20 and 35. A high number of women (71%) were taking the course, and only a small number of students were retaking the course (5.9%). With regard to the university entrance mode, 84.1% came from high school, and 25.7% did not choose these studies as their first career choice. Finally, 87.4% of the students who participated in the study were full-time students.

4.2. The questionnaire

In order to design the questionnaire, we conducted a review of major studies that have addressed the issue under study. The questionnaire included a series of questions related to students' perceptions of several dimensions of the teachinglearning process (see appendix 1). Students were asked to evaluate the increases in their knowledge levels and competence development as a result of participating in the course. Regarding the lecturer's role, the students were asked to give their opinion in relation to the lecturer's ability to create a good teacher-student relationship and the suitability of the teaching methods used during the course (classic lecture, case discussion, etc.).

The items dealing with competences were written to find out what extent the teaching of the contents had helped students to develop specific competences defined within the EHEA. These competences were taken from the reports on the Bachelor programs accredited by the Spanish National Agency for Quality Assessment and Accreditation (ANECA). The competences selected for this study, such as initiative and entrepreneurship or the motivation for quality, are highly valued in the business world. At the same time, they adequately reflect the intention of university programs to teach competences that can be applied in a variety of situations (Tynjälä et al., 2003). In order to reduce common method bias and avoid the use of the same word form, which might lead respondents to consistency (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), two different types of scales were designed. The scales for the variables "ability to create a good relationship", "suitability of teaching methods", and "knowledge acquisition" are based on agreement (Completely disagree - Completely agree), whereas the scale for the variable "competence development" is based on the degree of increase (very low increase - high increase). In addition, on the final questionnaire, the variable "competence development" was inserted between two of three variables with the same type of scale.

4.3. Analysis and results

SEM methodology was used to analyze the proposed hypotheses using the EQS 6.1 statistics software. Thus, as Anderson and Gerbing (1988) recommend, we first analyzed the measurement models, and after verifying the goodness-of-fit of each, we analyzed the structural model that proposes the relationships between latent variables.

4.3.1. Analysis of measurement models

The analyses carried out with the original database led to the elimination of four questionnaires because they presented missing values in some of the variables of interest. Subsequently, the data were analyzed to identify *outliers* and, following the recommendations of Byrne (2006), two questionnaires were considered *outliers* and eliminated from the database.

In order to demonstrate the robustness of the scales used as measuring instruments, their psychometric properties were studied. To this end, Confirmatory Factor Analysis (CFA) was used by means of structural equations. Because multivariate distributions were non-normal, maximum likelihood with robust estimators was used to estimate the models.

The scales measuring the lecturer's ability to create a good relationship and the suitability of the teaching methods were analyzed in the same CFA. In order to achieve a good model fit, an item from both scales was removed (see Table 2). In the resulting model, all estimators are significant at 1% and in the expected direction. Moreover, goodness-of-fit indicators also show that this was satisfactory, with a p value for the Satorra-Bentler Chi-squared of 0.237, a robust RMSEA of 0.041, and a CFI index higher than the recommended 0.9 limit.

Dimensions		Standardized estimator	Ζ	R ²	Composite reliability
ABI02	Ability to create a good relationship	0.870	_	0.756	0.850
ABI03		0.843	10.002	0.711	
ABI04		0.705	10.541	0,497	
SUI02	Suitability of teaching methods	0.751	_	0.563	0.870
SUI03		0.867	11.429	0.751	
SUI04		0.835	10.624	0.698	
SUI05		0.789	9.131	0.622	

Ability to create a good relationship and Suitability of teaching methods CFA results.

Measures of goodness-of-fit robust.

Table 2

 $\chi^2{}_{SB} = 16.217 \text{ DF} = 13 \text{ } p = 0.237 \text{ CFI} = 0.991 \text{ RMSEA} = 0.041.$

In terms of the reliability of the scales, the individual level of reliability of all the indicators was above 0.3, and both scales showed a composite reliability index superior to the recommended minimum of 0.6, which shows the internal consistency of the scales. At the same time, the literature review carried out to generate the items included in the scales, as well as the review of the questionnaire by several academics, justifies the content validity. As far as convergent validity is concerned, all the factor loadings scored more than 0.5, and the Average Variance Extracted (AVE) was above 0.50 (see Table 3). Lastly, Table 3 shows that the AVE from both constructs was higher than the square of their correlation, which confirms their discriminant validity.

A second CFA was conducted with the students' performance indicators. As Table 4 shows, in order to obtain a model with satisfactory fit, two items had to be removed from the competence scale. In the resulting model, all estimators are significant at 1% and in the expected direction, and the goodness-of-fit indicators allow us to conclude that the model fit was satisfactory.

The internal consistency of the scales included in the second analysis is also confirmed, as Table 5 shows. The convergent validity is considered satisfactory because all factor loadings are above 0.5, and the AVE for both scales is above 0.5. Finally, the data collected in Table 5 confirm the discriminant validity of both scales.

4.3.2. Analysis of the structural model

The hypotheses formulated were tested using the structural model shown in Fig. 1, which obtained a satisfactory fit.

The analysis of the results shows that the level of knowledge acquisition achieved by the student has a positive and significant relationship with competence development, supporting Hypothesis 1.

Regarding the dimensions of the lecturer's role in the achievement of knowledge acquisition and the development of competences, first, the lecturer's ability to create good relationships did not show a significant effect on students' levels of knowledge acquisition or competence development, and so Hypotheses 2 and 3 cannot be confirmed. However, the lecturer's ability to create a good relationship has a positive and significant relationship with the suitability of the teaching methods used during the course, corroborating Hypothesis 4.

The second dimension of the lecturer analyzed was the suitability of the methods selected to transfer the knowledge and skills. In this case, results show that the suitability of these methods is positively and significantly related to students' levels of knowledge acquisition and competence development, supporting Hypotheses 5 and 6.

5. Discussion and conclusions

This paper analyzed the influence of students' perceptions of the role of the lecturer on knowledge acquisition and competence development in management education. The results show that there is a direct relationship between the students' perception about the suitability of the teaching methods chosen by the lecturer and their knowledge acquisition and competences development. Moreover, the lecturer's ability to create a good relationship with the student is indirectly associated with the knowledge acquisition achieved and the development of competences, through the link established with the suitability of the teaching methods.

This study reveals that it is important for university lecturers to be capable of building good relationships with their students. In line with what De Miguel Díaz (2006) outlined, efforts made by lecturers to create a relaxed atmosphere of mutual trust and dialogue with students will produce benefits for each student, as students are more likely to participate and clarify any doubts they may have. In addition, it will allow the lecturer to identify any necessary adaptations to the teaching methods during the course, and the group as a whole will benefit from these adaptations. Therefore, creating a good relationship will make it possible, for example, to identify when the group has consolidated knowledge they have to study more in-depth through a case study, or when assimilation has been weak and an additional traditional class is needed to enhance their knowledge base. These findings support Fernández et al. (2010), who state that to be a good lecturer it is not enough to have knowledge and experience in the specific discipline to be taught, but lecturers also need pedagogical training in the use of the teaching methods, depending on the situation.

However, the results of the analyses performed to test the hypotheses about the relationship between the lecturer's ability to create a good relationship and students' level of knowledge acquisition and competence development were not significant. Therefore, contrary to the hypotheses, the students' perceptions of the quality of the relationship are not a decisive element in the acquisition and use of knowledge. These surprising findings could be explained by some additional factors, such as the students' affective learning ability in terms of their motivation and self-efficacy.

The findings from this research provide empirical evidence to advance the understanding of knowledge acquisition and competence development in undergraduate management education. Thus, the paper has contributed to the literature by

Table 3

Squared correlation matrix: Ability to create a good relationship and Suitability of teaching methods.

Dimensions	ABI	SUI
ABI: Ability to create a good relationship SUI: Suitability of teaching methods	0.655 0.547	0.690

AVE is represented on the main diagonal.

Table	4

Knowledge acquisition and Competence development CFA results.

Dimensions		Standardized estimator	Ζ	R ²	Composite reliability
KA01	Knowledge acquisition	0.915	_	0.837	0.881
KA02		0.781	10.466	0.611	
KA03		0.832	12.160	0.693	
CD01	Competence development	0.833	_	0.693	0.830
CD02		0.835	11.890	0.697	
CD03		0.688	8.405	0.474	

Measures of goodness-of-fit robust.

 $\chi^2_{SB} = 14.857 \text{ DF} = 8 \text{ } p = 0.061 \text{ CFI} = 0.982 \text{ RMSEA} = 0.077.$

Table 5

Squared correlation matrix: Knowledge acquisition and Competence development.

Dimensions	KA	CD
KA: Knowledge acquisition	0.713	
CD: Competence development	0.443	0.621

AVE is represented on the main diagonal.





proposing a model in which knowledge acquisition and competence development are explained by students' perceptions of two aspects of lecturers' work: their ability to create a good relationship with students and the appropriateness of the teaching methods used. The proposed model shows the similarities between the scientific areas covered: higher education, business training, and knowledge transfer. Some relationships, such as the one between the suitability of the methods used to transfer knowledge and the individual's development of a set of competences, would appear to hold in all three contexts. These results suggest that, for some specific issues, educational problems found in universities could also be analyzed based on the theoretical tenets of the business field. In this sense, the assimilation of the course contents shows a significant relationship with students' development of competences needed in the business sector, such as initiative, entrepreneurship, motivation for quality, and a commitment to ethics. In other words, the relationship has been shown between the knowledge and skills transmitted and the development of certain competences that the student will need in his/her working life. Thus, despite the fact that the competences used in this study can only be tried out in a specific working situation, we have shown that students' competences can be molded during a course to a significant extent. This study also provides relevant insights that lead to practical recommendations for lecturers in higher education institutions under the new EHEA, as agents who can have a direct and indirect impact on knowledge acquisition and competence development. Students' perception of the role of the lecturer is fundamental because s/he is largely responsible for students' attitudes, convictions, and confidence levels toward the learning objectives. Moreover, lecturers should also pay attention to their interpersonal contacts with students because they tend to define the teacher's role in helping them to study and find solutions to problems encountered in the process of learning (Bernal, 2007). Even when management modules in universities are taught in crowded classrooms in certain European countries, lecturers should seek a closer interaction with the student. Office hours and practice-oriented sessions should be fostered, along with openness to answering questions. Additionally, course planning and teaching strategies are key aspects, although flexibility in adapting to the conditions of the class is also relevant.

Practical recommendations for policy makers and university managers such as deans can be also extracted from the findings of this study. Thus, higher education lecturers must know different teaching strategies, the process and key characteristics in applying them, and the necessary context for their success.

Although in recent years teaching approaches other than the classic lecture have become popular in European university classrooms, knowledge about advanced pedagogical techniques is still scarce among lecturers whose main field is not Education. Advanced pedagogical courses integrated in optional programs for lecturers should be regularly organized by universities and faculties. Along the same lines, advanced pedagogical knowledge could be considered a relevant merit when selecting candidates for open positions, going beyond traditional views that only emphasize research, knowledge, and academic backgrounds and potentials. Another aspect to consider is the need for smaller groups that make closer interaction with students possible. In this regard, overcrowded classrooms create barriers to a smooth relationship between the lecturer and his/her students because many students prefer to remain unknown to the lecturer for motivational or personality reasons, and the lecturer's limited rationality restricts his/her ability to remember established contacts with students.

Finally, it is important to recognize that this research is limited in some ways. First, the level of knowledge acquisition achieved by a student and his/her development of competences can be affected by other variables, both individual and contextual, that have not been included. Consequently, in the future, it would be advisable to use larger samples that would make it possible to include more variables in the structural equations models. Another important limitation is that the findings are based on data gathered from a self-report questionnaire used to measure all the variables included in the tested model. Finally, it must be kept in mind that the study was carried out in management education, and its findings may not be generalizable to other studies with different, higher level, more basic, or more technology-based contents. For this reason, further research could analyze whether this model might vary depending on the type of studies. Moreover, a longitudinal design could be used to determine the causality of the relationships found in this study over time.

Dimension	Questionnaire items	References
Ability to create a good relationship with students	I interacted with the teacher whenever I needed to (ABI01)* When necessary, the relationship with the teacher has been one of good collaboration (ABI02) Communication with the teacher has been very easy (ABI03) Communication between student and teacher has been actively	Szulanski (1996); Hansen (1999)
Suitability of teaching methods chosen	encouraged by the teacher (ABI04) s The teaching techniques used in this course were appropriate to convey the intended knowledge and skills (SUI01)* The teaching techniques used in this course were appropriate to convey the intended competences (SUI02)** The teaching techniques in this course were used as often as required by the course content (SUI03) The teaching techniques used in this course were the most appropriate for each part of the syllabus (SUI04) The application of the techniques for teaching this course was designed by the ourse forcer rigorously (SUI05)	Machin and Fogarty (2003); Lim and Morris (2006)
Knowledge acquisition	I understood much of the knowledge that the course intended to convey (KA01) I learned a lot from the classes in the course (KA02)** I've assimilated much of the knowledge and skills contained in the course (KA3)	NOE and Wilk (1993); Seyler, Holton, Bates, Burnett, and Carvalho (1998)
Competence development	Initiative and entrepreneurship (CD01) Motivation for quality (CD 02) Ethical commitment CD 03) Autonomous learning (CD 04)* Ability to adapt to new situations (CD 05)*	Reports from Bachelor programs

Appendix 1. Measure scales.

Note: * Items eliminated due to low standardized weight or reliability.

** Items eliminated to reach a good fit of the model.

References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103(3), 411–423. http://dx.doi.org/10.1037/0033-2909.103.3.411.
- Argote, L, McEvily, B., & Reagans, R. (2003). Managing knowledge in organizations: An integrative framework and review of emerging themes. *Management Science*, 49(4), 571–582. http://dx.doi.org/10.1287/mnsc.49.4.571.14424.
- Armstrong, S. J., & Fukami, C. V. (2010). Self-assessment of knowledge: A cognitive learning or affective measure? Perspectives from the management learning and education community. Academy of Management Learning and Education, 9(2), 335–341.
- Arthur, W., Bennett, W., Edens, P. S., & Bell, S. T. (2003). Effectiveness of training in organizations: A meta-analysis of design and evaluation features. Journal of Applied Psychology, 88(2), 234–245. http://dx.doi.org/10.1037/0021-9010.88.2.234.
- Baird, L., Griffin, D., & Henderson, J. (2003). Time and space: Reframing the training and development agenda. Human Resource Management, 42(1), 39-52. http://dx.doi.org/10.1002/hrm.10063.
- Bernal, C. I. (2007). Un análisis crítico del modelo del triángulo pedagógico. Investigación, 12(32), 435-456.
- Botma, Y., Van Rensburgb, G. H., Coetzeec, I. M., & Heyns, T. (2015). A conceptual framework for educational design at modular level to promote transfer of learning. *Innovations in Education and Teaching International*, 52(5), 499–509. http://dx.doi.org/10.1080/14703297.2013.866051.
- Brachos, D., Kostopoulos, K., Soderquist, K. E., & Prastacos, G. (2007). Knowledge effectiveness, social context and innovation. Journal of Knowledge Management, 11(5), 31–44. http://dx.doi.org/10.1108/13673270710819780.
- Burke, V., Jones, I., & Doherty, M. (2005). Analysing student perceptions of transferable skills via undergraduate degree programmes. Active Learning in Higher Education, 6(132), 132–144. http://dx.doi.org/10.1177/1469787405054238.
- Byrne, B. M. (2006). Structural equation modeling with EOS: Basic concepts, applications, and programming, Mahwah: Lawrence Erlbaum Associates.
- Carrell, L. J., & Willmington, S. C. (1996). A comparison of self-report and performance data in assessing speaking and listening competence. *Communication Reports*, 9, 185–191.
- Davenport, T. H., & Prusak, L. (1998). Working knowledge: How organizations manage what they know. Boston: Harvard Business School Press.
- De Miguel Díaz, M. (2006). Modalidades de enseñanza centradas en el desarrollo de competencias: Orientaciones para promover el cambio metodológico en el Espacio Europeo de Educación Superior. Universidad de Oviedo.
- Dobransky, N. D., & Frymier, A. B. (2004). Developing teacher-student relationships through out of class communication. *Communication Quarterly*, *52*, 211–223.
- Fernández, M. J., Carballo, R., & Galán, A. (2010). Faculty attitudes and training needs to respond the new European Higher Education challenges. Higher Education, 60(1), 101–118. http://dx.doi.org/10.1007/s10734-009-9282-1.
- García Aracil, A., Mora, J. G., & Vila, L. E. (2004). The rewards of human capital competences for young European higher education graduates. *Tertiary Education and Management*, 10(4), 287–305. http://dx.doi.org/10.1080/13583883.2004.9967133.
- García-Almeida, D. J., Hernández-López, L., Ballesteros, J. L., & De Saá-Pérez, P. (2012). Motivation and prior knowledge as determinants of knowledge assimilation: Explaining the academic results of tourism students. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 11, 151–160. http://dx.doi. org/10.1016/j.jhlste.2012.04.002.
- Giacalone, R. A., & Promislo, M. D. (2013). Broken When Entering: The Stigmatization of Goodness and Business Ethics Education. Academy of Management Learning and Education, 12(1), 86–101.
- González, J., & Wagenaar, R. (2003). Tuning educational structures in Europe. Universidad de Deusto.
- Green, J. H. (2013). Transfer of learning and its ascendancy in higher education: A cultural critique. *Teaching in Higher Education*, 18(4), 365–376. http://dx. doi.org/10.1080/13562517.2012.719155.
- Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. Administrative Science Quarterly, 44(1), 82–111. http://dx.doi.org/10.2307/2667032.
- Haveman, R. H., & Wolfe, B. L. (1984). Schooling and economic well-being: The role of non-market effects. *The Journal of Human Resources*, 19(3), 377–407. Kember, D. (2009). Promoting student-centred forms of learning across an entire university. *Higher Education*, 58, 1–13. http://dx.doi.org/10.1007/s10734-008-9177-6
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77, 1121–1134.
- Lim, D. H., & Johnson, S. D. (2002). Trainee perceptions of factor that influence learning transfer. International Journal of Training and Development, 6(1), 36-48.
- Lim, D. H., & Morris, M. L. (2006). Influence of trainee characteristics, instructional satisfaction, and organizational climate on perceived learning and training transfer. Human Resource Development Quarterly, 17(1), 85–114. http://dx.doi.org/10.1002/hrdq.1162.
- Machin, M. A., & Fogarty, G. J. (2003). Perceptions of training-related factors and personal variables as predictors of transfer implementation intentions. Journal of Business and Psychology, 18(1), 51–71. http://dx.doi.org/10.1023/A:1025082920860.
- Masjuan, J. M., & Troiano, H. (2008). A psycho-sociological approach. Higher Education (Vol. 58, pp. 15-28). University students' success.
- Montero Curiel, M. (2010). El proceso de Bolonia y las nuevas competencias (Vol. 9, pp. 19–37). Tejuelo.
- Murk, P. J., Barrett, A. J., & Atchade, P. J. (2000). Diagnostic techniques for training and education: Strategies for marketing and economic development. Journal of Workplace Learning, 12(7), 296–306. http://dx.doi.org/10.1108/13665620010353441.
- Nguyen, T. T. M., & Nguyen, T. D. (2010). Determinants of learning performance of business students in a transitional market. *Quality Assurance in Education*, 18(4), 304–316. http://dx.doi.org/10.1108/09684881011079152.
- Noe, R. A., & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Personnel Psychology*, 78(2), 291–302.
- Nonaka, I., & Takeuchi, H. (1995). The knowledge-creating company. How japanese companies create the dynamics of innovation. New York: Oxford University Press.
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and leadership: A unified model of dynamic knowledge creation. Long Range Planning, 33(1), 5–34. http://dx.doi.org/10.1016/S0024-6301(99)00115-6.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. http://dx.doi.org/10.1037/0021-9010.88.5.879.
- Quinones, M. (1995). Pretraining context effects: Training assignment as feedback. *Journal of Applied Psychology*, 80, 226–238. Ratten, V., & Suseno, Y. (2006). Knowledge development, social capital and alliance learning. *International Journal of Educational Management*, 20(1), 60–72. http://dx.doi.org/10.1108/09513540610639594.
- Richardson, S., & Radloff, A. (2015). Allies in learning: Critical insights into the importance of staff-student interactions in university education. *Teaching in Higher Education*, 19(6), 603–615. http://dx.doi.org/10.1080/13562517.2014.901960.
- Riesco González, M. (2008). El enfoque por competencias en el Espacio Europeo de Educación Superior y sus implicaciones en la enseñanza y el aprendizaje. Tendencias Pedagógicas, 13, 79–105.
- Salas Velasco, M. (2014). Do higher education institutions make a difference in competence development? A model of competence production at university. *Higher Education*, 68(4), 503–523. http://dx.doi.org/10.1007/s10734-014-9725-1.
- Salas, E., & Cannon-Bowers, J. A. (2001). The science of training: A decade of progress. Annual Review of Psychology, 52, 471–499. http://dx.doi.org/10.1146/ annurev.psych.52.1.471.
- Seyler, D. L., Holton, E. F., Bates, R. A., Burnett, M. F., & Carvalho, M. A. (1998). Factors affecting motivation to transfer training. International Journal of Training and Development, 2(1), 2–16.

- Sitzmann, T., Ely, K., Brown, K. G., & Bauer, K. N. (2010). Self-assessment of knowledge: A cognitive learning or affective measure? Academy of Management Learning & Education, 9(2), 169–191. http://dx.doi.org/10.5465/AMLE.2010.51428542.
- Sundström, A. (2005). Self-assessment of knowledge and abilities. Umeå University.
- Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17, 27–43. winter special issue.
- Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. Organizational Behavior and Human Decision Processes, 82(1), 9–27. http://dx.doi.org/10.1006/obhd.2000.2884.
- Tam, M. (2014). Outcomes-based approach to quality assessment and curriculum improvement in higher education. *Quality Assurance in Education*, 22(2), 158–168.
- Teece, D. J. (2000). Strategies for managing knowledge assets: The role of firm structure and industrial context. Long Range Planning, 33(1), 35–54. http://dx. doi.org/10.1016/S0024-6301(99)00117-X.
- Teichler, U. (2007). Does higher education matter? Lessons from a comparative graduate survey. European Journal of Education, 42(1), 11–34. http://dx.doi. org/10.1111/j.1465-3435.2007.00287.x.
- Tynjälä, P., Välimaa, J., & Sarja, A. (2003). Pedagogical perspectives on the relationships between higher education and work life. *Higher Education*, 46(2), 147–166.
- Vallima, J., & Hoffman, D. (2008). Knowledge society discourse and higher education. Higher Education, 56(3), 265-285.
- Walczyk, J. J., & Hall, V. C. (1989). Effects of examples and embedded questions on the accuracy of comprehension self-assessments. *Journal of Educational Psychology*, 81, 435–437.
- Wathne, K., Roos, J., & Von Krogh, G. (1996). Towards a theory of knowledge transfer in a cooperative context. In G. Von Krogh, & J. Roos (Eds.), Managing knowledge. Perspectives on cooperation and competition (pp. 55–81). London: SAGE Publications.
- Wells, D., & Schminke, M. (2001). Ethical development and human resources training. An integrative framework. Human Resource Management Review, 11(1/ 2), 135–158. http://dx.doi.org/10.1016/S1053-4822(00)00044-9.