



Modelling, using structural equations, the level of satisfaction of university accounting teachers with final year dissertations

José Antonio Donoso Anes^a, Francisco Serrano-Domínguez^b, José Antonio Camúñez-Ruíz^c

a,b) Departamento de Contabilidad y Economía Financiera, Universidad de Sevilla. Sevilla, España.

c) Departamento de Economía Aplicada I, Universidad de Sevilla. Sevilla, España.

^bCorresponding author.

E-mail address: fserrano@us.es

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ABSTRACT

The low satisfaction of university accounting teachers with the mentoring process of the Final Year Dissertation (FYD) has motivated carrying out this study. Moreover, lecturers are very interested in knowing which factors are influencing this satisfaction.

The aim of the study is to detect which factors explain this state of satisfaction and model this relation. The elements which have been able to influence this opinion have been identified and studied. Exploratory factor analysis has extracted 5 factors from them: the acceptance of the methodology, the perception of competence, generic competences, the importance of instrumental competences and the importance of systemic competences.

The results reveal the relations between the constructs and satisfaction. In conclusion, if we wish to build a teaching strategy which reinforces university accounting teachers' degree of satisfaction in their work mentoring the FYD, this should be centred on enhancing its generic competences. The development of these generic competences directly or indirectly impacts the mentors' opinions concerning the importance of the instrumental and systemic competences and, consequently, their satisfaction.

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Modelización, usando ecuaciones estructurales, del grado de satisfacción de los profesores universitarios de contabilidad sobre el trabajo fin de grado

RESUMEN

La baja satisfacción que el colectivo de profesores universitarios de Contabilidad muestra ante el proceso de tutorización del Trabajo Fin de Grado es lo que ha motivado la realización del trabajo; además, existe mucho interés, por parte del colectivo de profesores, en conocer que factores son los que están influyendo en ese estado de satisfacción.

El objetivo del estudio es detectar qué factores explican el citado estado de satisfacción y modelizar dicha relación.

Se han identificado y estudiado los elementos que han podido influir en la construcción de dicho estado de opinión y se han extraído, mediante análisis factorial exploratorio, 5 factores: aceptación de la metodología, percepción de competencia, competencias genéricas, importancia de competencias instrumentales, importancia de competencias sistémicas

Los resultados evidencian las relaciones entre los constructos y la satisfacción. En conclusión, si queremos construir una estrategia docente que refuerce el grado de satisfacción del profesor universitario de Contabilidad en la labor de tutela del TFG, esta debería centrarse en potenciar las competencias genéricas del TFG. El desarrollo de las competencias genéricas, directa o indirectamente, repercuten sobre la opinión del tutor sobre la importancia de las competencias instrumentales y sistémicas y, en consecuencia, en su satisfacción.

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1. Introduction

The origin of the work is in the debate which, currently, at a national level, is taking place among university teachers about doing the FYD. This has been compulsory in Spain since the application of the Royal Decree 1393/2007, of 29 October, referring to the planning of official university teaching. The interest of lecturers has been embodied in diverse publications and congress communications. Monographic congresses and the I Inter-university Congress of the FYD (Bilbao-2014) with 35 communications and 26 posters (Pérez, Bilbao, Fernández de Larrea, Molero, & Ruiz de Gauna, 2014), and the II Inter-university Congress of the FYD (Valladolid-2017) with 62 communications and 34 posters have been significant. These congresses have spanned diverse topics from organisation to work methodology and its evaluation.

The work is motivated by the initial perception that there is discontent in university teachers concerning the mentoring process of the FYD (Jato, Cajide, García, & Zamora, 2018). We have gone from this perception to its study via a methodological process of research which has had the following guidelines. Matters have been examined as they stand via gathering information obtained through a questionnaire based on the contributions of the lecturers themselves. Next, a descriptive analysis of the demographic variables has been done, as well as a prior exploratory factor analysis for the items which are the subject of our research. 5 constructs have been defined which are used in the later modelling, via structural equations and using a variance-based methodology.

In our particular context, the study has centred on the group of university accounting teachers. This is not because they have different characteristics from the rest of university teachers, but rather because accounting is one of the few disciplines which have opened their own area of research into teaching, as is shown by having its own dissemination channels and there being topics around which the research effort can be articulated (Apostolou, Dorminey, Hassell, & Hickey, 2019; Arquero, Jiménez-Cardoso, & Laffarga-Briones, 2017; Rebele & St. Pierre, 2015).

As things stand, the work investigates the different factors which affect the development of the mentoring of the FYD: regulation, obligation, dedication and recognition, assignation of mentors and students, work method, evaluation and the importance of the competences to develop in the FYD and their level of development. In parallel, it gathers a valuation of the lecturers' general satisfaction in their experience of mentoring the FYDs. The average value of general satisfaction obtained has been 2.9¹.

The aim of the work is to explain the reason for this low satisfaction. This is why the question that we ask is: what are the factors which are influencing the degree of lecturers' satisfaction with the process of mentoring the FYD?

Satisfaction is a general state of pleasure. In our case, facing a process of mentoring an FYD or its result. Although there are bibliographic references of positive perceptions of lecturers with the process of mentoring and organisation (Jato et al., 2018; Feather, Anchor, & Cowton, 2014) and the opinions concerning the mentorees' activities (Todd, Smith, & Bannister, 2006), we do not find works which evince which factors directly or indirectly relate with the construction of the degree of satisfaction. This is the aim of this work. Therefore, our study is centred on the search for the factors which explain this low satisfaction. To do so, an exploratory factor

analysis has been done and reveals five explanatory factors of satisfaction related with the development of the generic competences and the level of importance which the lecturers assign to the instrumental and systemic competences, as well as the perception which they have of their own competences and the personal acceptance of the mentoring. This result, referring to competences, is in line with the opinions given by Félix, Romero, and Guerrero (2016) and Pinedo-González (2014), who consider competences in doing the FYD elements of acceptance by the lecturers.

Taking into account the explanatory factors obtained from the factor analysis, we construct the following hypotheses: *Inasmuch as lecturers perceive that they are trained and qualified to direct an FYD and that they master the competences which are demanded from the students to do the FYD:*

- H1. *They feel less averse to accepting and facing the mentoring process (in line with the opinion of Jato et al., 2018 and Feather, Anchor, and Cowton, 2014).*
- H2. *They perceive the importance of the students developing generic, instrumental and systemic competences when doing the FYD. In this sense, there exists evidence of improvements in the satisfaction of mentors linked with students developing competences (in line with the opinion of Félix, Romero, & Guerrero, 2016).*
- H3. *The fact that these competences are related directly or indirectly and that they are going to be developed by students increases the lecturers' satisfaction (in line with the opinion of Rekalde, 2011).*

Consequently, the aim of the work has been to construct a structural equations model in which appear the relations of involvement of the five constructs and their impact on the satisfaction of the lecturers who are the subject of the investigation. So, there remains a modelling of the degree of satisfaction of university accounting lecturers concerning the mentoring of the FYD.

One of the current concerns in relation with research into the teaching of accounting is the strong disconnection between this type of research and the teaching practice (Rebele & St. Pierre, 2015). The importance of this work is that the results obtained can have a significant impact on the teaching practice, reducing the existing gap, as its main contribution is that it identifies the factors which correlate with satisfaction. This implies that we can construct a teaching strategy in the mentoring of the FYD based on fostering competences that are generic (GC, which value the degree of usefulness which studying the FYD has for the student), instrumental (IC, tools for learning and training) and systemic (SC, related with the view of the whole and the capacity of appropriately managing all the activity) that are developed in students when doing the FYD. The development of these competences impact, directly or indirectly, on the supervising lecturers' satisfaction.

The structure of the rest of the work is as follows. There is a literature review centred on that related with the proposed variables and the hypotheses. The methodological process is presented, focusing on the descriptive analysis of the sample and the variables which the explanatory factors construct. Then, the statistical methodology puts forward the result of the exploratory factor analysis and the later modelling via structural equations. We finish the work with the analysis of the results, the conclusions, contributions and limitations.

¹Average on a Likert scale of 1 to 5 (1-very little, 5-a lot).

2. Literature review

Satisfaction is a term associated with the state of wellbeing, harmony and even a degree of happiness. In the work environment, the satisfaction of lecturers with their professional activity has to be understood as the interaction of a set of factors such as: teaching, research and management activity, pay, and recognition. Likewise, autonomy, flexibility, creativity, feeling oneself fulfilled or being suitable for the job are generators of satisfaction (Sharma & Jyoti, 2009; Oshagbemi, 2000). University accounting lecturers link work satisfaction with remuneration and the distribution of the time for research activities, as these take precedence with lecturers and administrative staff (García, Gandía, & De Fuentes, 1997). Therefore, the teaching activity does not seem to be a determinant factor of the satisfaction of university accounting lecturers. Hence, faced with incorporating a new activity, such as the mentoring of the FYD, we wish to study its relation with satisfaction, motivated by the non-response of the literature. In this sense, the work seeks to answer the question: what are the factors which influence the satisfaction of university accounting lecturers faced with mentoring an FYD?

There are not contributions in the literature in line with relating the satisfaction of mentors with their monitoring work and which factors or elements could improve this satisfaction. We only find collateral works, such as that which reveals the work of tutelage but within a ranking of decisive elements of work satisfaction. It occupies the 6th. position out of 23 identified, being below activities related with research but above management work (Gruneberg & Startup, 1978). The work of Feather et al. (2014) studies how lecturers perceive the capability of students when doing an FYD, the value which it gives them and the impact that it can have on their results, also the demands which supervising imposes on mentors and that can be part of the lecturers' satisfaction construct. On the other hand, works have been published on the perception of students' satisfaction, such as those of Woolhouse (2002) and Jamieson and Gray (2006) who centre their studies on satisfaction linked to the differences of expectations generated by the two intervening agents: student and mentor. The works of Briones and Vera (2013) and Vera and Briones (2015) study how students' satisfaction is related with the training of mentors, the establishing of more effective and transparent criteria of the tribunals in charge of evaluating FYDs, the improvement of the quality of the information provided to the students to do the FYD, and adjusting the assignation of credits to fit them to the degree of dedication of students in their work done.

Therefore, the works related with opinions about the FYD have been centred on students. However, there are not significant contributions related with lecturer-mentor satisfaction and the process of mentoring the FYD, beyond its contribution to the students' success or the students' evaluations of the tutelage work.

Among the factors which can be determinants of the lecturer's satisfaction concerning a teaching activity, specifically mentoring, is that the lecturers feel competent and master the competences which they have to develop in this activity.

The perception which lecturers have about their competence to do an effective work of tutelage has been studied by the literature from diverse points of view. Thus, the work of Cook (1980) establishes the requirements which mentors must have to develop their activity from an educational-psychological-supervisor point of view. That is to say, as directors of the work, which has a greater involvement. Altern-

atively, there exist approaches which place the lecturer as a counsellor more than as a director (Armstrong & Shanker, 1983), as a human resources counsellor (Sanderson, Clewes, & Hand, 1998) or those which go into aspects such as the use of technology for the tutelage (Heinze & Heinze, 2009), of the productivity which it generates and the mentors' resistance to change (Augustsson & Jaldemark, 2014; Jaldemark & Lindberg, 2013), or the search for systems of effective tutelage (Rowley, 2000; Rowley & Slack, 2004a).

The tutelage work of an FYD developed by the lecturer is not common in other subjects as, being personalised, the lecturers express their greater experience adopting the role of mentor (mentoring approach), supporting and helping the person mentored to develop and share their teaching-learning practices and strategies, given that these will serve as a model in the development of the student's professional role (Allen, Eby, Poteet, Lentz, & Lima, 2004; Allen, Poteet, & Burroughs, 1997).

When lecturers perceive that they are prepared for their activity of mentoring, they assume the activity more satisfactorily as it affects the relation with their students. The relation of mentors and students during the elaboration of the FYD has been the subject of diverse studies. In relation with the tutelage of works, we highlight those which study the perceptions and expectations of the mentors and students, based on the relation which they develop during the work (Jamieson & Gray, 2006; Woolhouse, 2002). The work of Feather, Anchor, and Cowton (2014) finds how the lecturers feel competent to face the tutelage process, but in turn they consider that not all the students are competent to face the FYD, as they lack, or at least have not appropriately developed, the specific competences necessary to do it. These conclusions contrast with more recent studies done in Spain (Vera & Briones, 2016) in which the students did consider themselves prepared for this kind of works, although these differences of perceptions are common and have already been analysed (Orsmond, Merry, & Reiling, 2004).

Consequently, we study the relation of the lecturer's perception of the competences with the methodological acceptance in the mentoring of the FYD. Therefore, inasmuch as the lecturers perceive that they are trained and competent to direct an FYD and that they master the competences which are required from the student to do the FYD, the lecturer should feel less aversion to accepting and facing the mentoring process (the formulation of hypothesis 1, H1)

The core of the work is the search for factors which explain satisfaction in relation with the mentoring of the FYD. The exploratory factor analysis identifies three factors related with competences (the importance of generic, instrumental and systemic competences). That is to say, competences which are classified addressing that provided by *The Tuning Educational Structures in Europa Project* (Wagenaar & González, 2002), better known as *Project Tuning*.

In relation with generic competences, studies have been done about what competences are expected to be developed through carrying out works of a similar nature (James, 1998), about the reinforcing of research competences in those degrees where research is an indispensable part of professional competences (James et al., 2011; Malcolm, 2012), about learning based on collaborative problems (Garde-Hansen & Calvert, 2007), and the necessary link between theoretical knowledge and its practical application (Rowley & Slack, 2004b).

Among the works related with the instrumental competences linked to doing the FYD, we highlight a study on the handling of bibliographic resources (Callison, 1997), the cor-

rect use of academic language and evidence of the mentor's dedication to this task (Jensen et al., 2004), the handling of search engines or Internet tools and incompetence in the use of physical bibliographic sources (Porter, 2011), the design of face-to-face and virtual systems to improve students' writing style (Castelló, Iñesta, Pardo, & Martínez-Fernández, 2012) and the analysis of strategies to face the atmosphere of pressure and stress in the moments prior to depositing the work (Devonport & Lane, 2006; Todd et al., 2006).

With relation to systemic competences, we note the development of autonomy and independence (James, 1998; Skinner & Croft, 2009) and how autonomous work enables the development of other competences associated with the FYD (Greenbank & Penketh, 2009).

For the students to be able to acquire or, when applicable, enhance the competences which are expected for the tutelage experience to be satisfactory there must exist a balance in the involvement of mentors in this process. Both a lack of involvement due to the mentors' disaffection and an excess of their involvement prevent the student developing the competences (Roberts & Seaman, 2018).

Therefore, the mentors' perception of the development and the empowerment of competences in the students in the process of doing the FYD could be essential for their satisfaction as mentors. This helps us to formulate hypothesis 2 (H2) of the work: Inasmuch as lecturers perceive that they are trained and qualified to direct an FYD and that they master the competences which are demanded from the students to do the FYD, they perceive the importance of the student developing generic, instrumental and systemic competences when doing the FYD. We are going to work on the lecturers' opinions concerning the value of importance which they assign to each of these competences.

The lecturer considering the importance which the development of the competences has in carrying out the FYD does not imply that the student has developed them throughout the graduate studies. The lecturers find that the students do not have the ability to face doing the FYD as they lack the competences necessary to do so (Feather, Anchor, & Cowton, 2014). The fact that a high differential is perceived between the importance and the level could lead to influencing the lecturer's satisfaction. The reference to follow is the work of Del Río, Díaz-Vázquez, and Maside Sanfiz (2017) which, having the same structural equations methodology as this study, but applied to students, accepts the hypothesis that the competences developed by students in their interaction with their supervisor increases their satisfaction. This case relates the student's satisfaction with the development of competences in doing the FYD. This leads us to proposing the third hypothesis (H3): The fact that these competences, in doing the FYD, are going to be developed by the student could increase the lecturer's satisfaction.

Lastly, publications related with the FYD have proliferated in Spain since the application of the Royal Decree 1393/2007. Among the many novelties which the regulation introduced stands out the obligation of doing the FYD as part of a system of quality guarantee within the new era of Higher Education (Mateo, Escofet, Martínez, Ventura, & Vlachopoulos, 2012). Works related with this subject begin to emerge with the implementation of this reform. In this sense, as well as those cited in the introduction of the work, the study of Vera, Briones, and Sotos (2014) has had a certain relevance, as well as those already cited in this section, focused on finding out the students' perception about the FYD in general and the evaluation systems which are applied to them. There are the works of Romero, Corregidor, and López (2011) and of Bonilla,

Fuentes, Vacas, and Vacas-Guerrero (2012) related with the evaluation process, those of Valderrama et al. (2010), Rullan et al. (2010), Rekalde (2011), Félix, Romero, and Guerrero (2016) centred on the development and evaluation of competences, as well as the those of Vilardell (2010), Delgado and López (2012) and Donoso, Serrano, and Camúñez (2016) related with the area of Social and Legal Sciences.

3. Methodology

We begin by detecting the subjects which concern the lecturers about the FYD. A qualitative methodology based on semi-structured interviews is used. In this phase a total of fifteen meetings, twelve individual with a semi-structured script, with university accounting lecturers at the national level, one in group of 40 lecturers of different knowledge areas and monitoring commissions of the FYD of the Faculty of Economic Sciences and Business Studies and the Faculty of Tourism and Finances of the University of Seville, with a semi-structured script are done. As well as a relation of valuations about the lecturers' personal perceptions concerning the mentoring of the FYD, the following list of subjects which concerned the lecturers in the current development of the subject was obtained:

- The need for a unified regulation. Due to each centre having its own internal regulation about the FYD and that there are departments and lecturers who teach in various centres.
- Obligation to do the FYD in the degrees by the students and the obligation of lecturers to be mentors.
- Dedication and recognition of credits of the FYDs mentored by the lecturers. There is not a correlation between the two concepts.
- Assignment of the mentors to the students.
- Work method followed by the lecturer: role of the mentor, orientation and content of the work, mentoring, approval of the closure and preparation of the defence.
- Final evaluation of the FYD.
- Importance of the competences to develop in the FYD and their level of development.

Using the list of problems proposed, a questionnaire is elaborated with 74 items. A first draft of the questionnaire is done and 15 control tests of accounting teachers are performed. Aspects of writing and errors are corrected and the definitive questionnaire is elaborated. This is disseminated via the tool Google Forms² to the population of university accounting teachers. Currently, according to Sources of the Spanish Association of University Accounting Teachers (ASEPUC), there are approximately 900 at the national level. The questionnaire has been distributed through the ASEPUC database, which brings together 80% of the lecturers, the Directors of Department and directly to the lecturers.

The descriptive analysis of the demographic variables, as well as the prior exploratory factor for the items subject of our research was developed using IBM SPSS Statistics 25. The items chosen, using factor extraction by maximum likelihood and Varimax rotation, have defined 5 constructs. These are used in the later modelling. This modelling, via structural equations and using variance-based methodology, has been developed with Smart PLS 3.

²Address of the questionnaire: <https://forms.gle/qJxcRzSnZ7XhpfqD8>

3.1. Sample. Demographic and Social Characteristics

The number of valid responses was 247 from 48 Spanish universities (Annex 1). With respect to the population size, according to Lohr (2000), the relation between the sample and the population sample is given, for the case in which it is a question of estimating a proportion, by equality:

$$n = \frac{N \cdot z_{\alpha}^2 \cdot p \cdot q}{d^2 \cdot (N - 1) + z_{\alpha}^2 \cdot p \cdot q}$$

where n = sample size, N = population size, with a confidence which $1-\alpha$ we suppose of 95%, $1-\alpha=0,95$, for which is verified $z_{\alpha}=1,96$ under the assumption of normality. With p , proportion which one wants to estimate. In the worst of cases, $p=0,5$. With $q=1-p$. A p tends to be called heterogeneity. And with d = margin of error, or also known as "precision", which in the previous equality appears for one unit, but when informing is expressed as a percentage. A margin of error or precision between 1% and 9% is accepted.

In our case, a margin error of 5.31% is obtained with a population size of 900 and a sample of 247 individuals, for a confidence level of 95% and a heterogeneity of 50% of the cases.

The sample reflects the opinion of the demographic extracts in categories and sex. The responses gather the opinion of the different professional categories (Table 1), highlighting the 40.5% of Tenured University Lecturers, and a man-woman parity (51%, 126 men and 49%, 121 women).

Table 1
Professional category

	n	%
Professor	19	7.7
Tenured University Lecturer	100	40.5
College professor	8	3.2
Tenured University School Lecturer	33	13.4
Associate Lecturer	12	4.9
Adjunct Lecturer	33	13.4
Assistant Lecturer	11	4.5
Collaborator	21	8.5
Other	10	4.0
Total	247	100.0

Source: Own elaboration

The profile of the lecturers who have sent the survey is a lecturer with experience (Table 2), both for years of service (79.8%, 197, of the responses correspond to lecturers with more than 15 years of experience in the university), and the directing and mentoring of works (19% have directed 3 or more doctoral theses (DT), 46.2% have directed 3 end of master projects (EMP) and 88.7% (219) have mentored more than 3 FYD).

Table 2
Years of experience

	n	%
0 to 5	9	3.6
6 to 10	11	4.5
11 to 15	30	12.1
More than 15	197	79.8
Total	247	100.0

Source: Own elaboration

3.2. Variables

Competences associated with doing the FYD. Importance and level

To measure the competences, the Questionnaire of Effectiveness of the Use of Methodologies of Active Participation (CEMPA) has been used. This is an instrument validated by Carrasco et al. (2015), which values (on a Likert scale of 1, little to 5, a lot) the perception of importance of the competence being developed and the level actually developed.

In the FYD the student must develop, according to what is gathered in the verification reports, generic and specific competences. Within these latter are considered the instrumental competences which refer to the use of tools for learning and training, and the systemic competences which are related with the view of the whole and the capacity of appropriately managing all the action. 80.2% of the lecturers perceive that they have a sound mastery of these competences (average 4.1)³, so they feel prepared to develop them in the students.

The Generic Competences (GC) value the degree of usefulness which studying the FYD has for the student. The result shows that the lecturers consider that the FYD is useful for the students (all the items have medians and modes with value 4), as they involve them in their own learning (4), help to develop typical skills of the degree (3.8) and help to compare the knowledge learnt in the classroom with its application in real situations (3.7).

The lecturers have valued the importance of each specific competence to attain the aims of the FYD and have in parallel valued their perception of the level that the students have reached via doing it.

Table 3
Instrumental Competences. Importance given and level achieved

	Average importance	Average level	Difference
Instrumental Competences (IC)	4.14	3.48	-0.67
Organisation of time	4.19	3.46	-0.73
Problem solving	4.02	3.30	-0.72
Decision making	4.00	3.29	-0.72
Planning	4.28	3.52	-0.76
Computer use	3.92	3.55	-0.37
Database management	4.14	3.52	-0.62
Verbal communication	4.16	3.47	-0.69
Written communication	4.43	3.69	-0.75

Source: Own elaboration

The university accounting teachers are of the opinion that the instrumental competences (Table 3) are very important to attain the aims of the FYD (4.14), but they perceive that the average level of development by the students is 3.48. So, they note the need for intervention (-0.67) which annuls this difference. Except for computer use, all the other items obtain an average of 4 or more. Written communication (4.43) and planning (4.28) stand out, followed by verbal communication (4.16) and organisation of time (4.19), while none of the perceptions of the level of development of the different competences reaches the average of 4, those of lowest level and development being problem solving (3.30) and decision making (3.29). The difference between the level and the importance (all negative) points to a need for intervention and correction, as the lecturers perceive that the students do not

³Average on a 5-point Likert scale (1-totally disagree, 5-totally agree).

attain the sufficient level of competence. The main ones are planning (difference of -0.76) and written communication (-0.75), followed by organisation of time (-0.73), problem solving and decision making (-0.72) and the least computer use (-0.37).

Systemic competences (Table 4) are valued as being less important (3.54), if we compare them with the instrumental competences (4.14). Intellectual stimulation (3,82) and creativity (3.74) stand out and they perceive that the level of development achieved is less in delegation (2.5). The differences between level and importance, except delegation with -0.3, have values close to -0.7, very similar to those of the instrumental competences and show a need for intervention and correction, especially in management by objectives and management of projects with -0.71.

Table 4
Systemic competences. Importance given and level achieved

	Average importance	Average level	Difference
Systemic competences (SC)	3.54	2.93	-0.61
Creativity	3.74	3.08	-0.66
Management by objectives	3.69	2.97	-0.71
Management of projects	3.63	2.92	-0.71
Delegation	2.82	2.51	-0.31
Intellectual stimulation	3.82	3.16	-0.66

Source: Own elaboration

General perceptions of the mentoring process

The questionnaire has a block of 13 items about the lecturer's general perceptions concerning the mentoring process (Table 5). These perceptions fit within the concept of self-efficacy, being one of the pillars of Social Cognitive Theory (Bandura, 1978). Self-efficacy refers to people's belief of having the abilities to perform the actions necessary which will enable them to obtain the results desired (Bandura, 1995).

Those average valuations referring to recognition, to the lecturer's competence and to the mastery of the competences required stand out. The lecturers feel competent to tackle mentoring (4.4) and have enough training (4.4). Likewise, they consider that they master the competences which the student needs (4.1). The recognition of the work of mentoring stands out. The perception which 90.6% of the lecturers have is that the work of supervising that they do is not being sufficiently recognised (4.5).

Table 5
General perception of the work of tutoring of FYD

Items of the questionnaire	Averages ⁴
58. I feel competent to mentor FYD	4.4
59. I have enough training to mentor FYD	4.4
63. I master the competences required from the students to do the FYD	4.1
60. Mentoring work bores me	2.6
61. I consider mentoring to be an obligation	3.8
62. Mentoring gets me down	2.5
69. I prefer teaching to mentoring the FYD	3.7
70. Mentoring the FYD disrupts my academic activity	2.9
64. I feel that the results obtained are never up to the level of my need	3.1
65. I'm always on the alert as I feel there's a lot of cut-and-paste cheating in the FYD	3.5
66. When I pass an FYD I commit my prestige as a professional	3.5
67. If they fail a mentored FYD I feel they are failing me	2.8
68. Mentoring work isn't sufficiently recognised	4.5

Source: Own elaboration

⁴: Average on a Likert scale of 1 to 5 (1-totally disagree, 5-totally agree). The values of the items 60, 61, 62, 69 and 70 have a reverse value and direction.

The robustness of the answers about dedication and recognition stem from the opinion gathered coming from lecturers with experience in EMP and FYD. 66% of the lecturers have directed EMP and 96% FYD (88.7% have mentored more than 3).

The profile of the lecturers, by academic course, who have mentored FYD (Table 6), considering the average values, is a lecturer who has mentored 4 FYD (which differs from the reasonable number that is the opinion of the lecturers as optimum to mentor as between 2 and 3). The average number of meetings per FYD is 5, although 47.4% indicate that they have had more than 5 meetings per FYD. The average time of each meeting is 30 minutes and the average number of total hours dedicated to each FYD is 15 hours, calculating not only the hours of face-to-face mentoring but also the revisions, corrections and preparation for the defence.

Table 6
Profile of dedication by academic course

Number of FYD mentored	4
Number of meetings/FYD	5
Time of each FYD meeting	30 min.
Number of total hours dedicated to each FYD	15 h.

Source: Own elaboration

With this profile, the average number of hours, per academic course, dedicated to this subject is 60 hours, which is equivalent to 6 credits (average of 15 hours per FYD and 4 FYD mentored per course). This dedication contrasts with the recognition that the universities are giving each FYD. 73.7% indicate that 0.5 credits per FYD is recognised, which is equivalent to 2 credits for the 4 FYD on average which each lecturer mentors. Only 2.8% of the respondents agree with the recognition of 0.5 credit per FYD. 72.9% consider that between 1 and 2 credits per TFG should be recognised (the modal value is 1 credit, with 30.8%).

These results indicate a clear divergence between dedication and recognition, which leads to 53.9% of the lecturers showing their preference for giving classes rather than mentoring works. Specifically, the study of correlations shows that those lecturers who have directed doctoral theses are the ones who highlight this preference (significant correlation of 0.2570; p-value: 0.012). The explanation is that the lecturers with this profile show a greater degree of demand in doing the FYD and also of dissatisfaction with the results obtained.

4. Statistical Methodology

4.1. Exploratory factor analysis

The items which have been able to influence the construction of this state of opinion have been studied. Of all the items of the questionnaire 5 factors with a Cronbach Alpha reliability index between 0.716 and 0.894 have been extracted via exploratory factor analysis (they appear in Table 12), and which we have called:

- Acceptation of the methodology (AM)
- Perception of competence (PC)
- Generic competences (GC)
- Importance of instrumental competences (IIC)
- Importance of systemic competences (ISC)

The constructs of generic and specific competences are made up of the items already noted in the preceding section of importance of competences and Tables 3 and 4, while our proposal for the perception of competence and acceptance of the methodology is shown in Table 7. Some items with high loadings in more than one construct have been excluded after the initial exploratory factor analysis.

Table 7
Constructs of perception and acceptance

Construct	Items
Perception of competence (PC)	I feel competent to mentor FYD
	I have enough training to mentor FYD
	I master the competences required from the students to do the FYD
Acceptation of the methodology (AM)	Mentoring bores me
	I prefer teaching to mentoring the FYD
	Mentoring the FYD disrupts my academic activity

Source: Own elaboration

The result of the exploratory factor analysis appears in Table 8, with an extraction of factors for maximum likelihood, given the coefficients of asymmetry and kurtosis of the items, with moderate values, which do not contradict their hypothesis of normality. The factor analysis has generated 5 factors using the criterion of self-values greater than 1. The item “Satisfaction” has been left out of the analysis as it is the target variable of our research, or variable to modelise. The percentage of variance explained by the 5 factors selected is 72.381%, of which the first factor is 37.49%.

The rotation of the factors has been done after the factor analysis. The rotation seeks to reorganise the original loadings according to a predetermined criterion and enables clearly distinguishing the items which define each of the factors. It is known that the rotations which can be carried out can be classified into two groups: the orthogonal, which establish the supposition of no correlation between the factors extracted, and the oblique, where a correlation between this factors is admitted. In our case, we have opted for an orthogonal rotation, the VARIMAX, which seeks the minimum correlation between the constructs after being rotated.

We add measures associated with the factor analysis which support the relevance of the analysis itself.

Bartlett’s test of sphericity. This is used to verify the hypothesis that the matrix of correlations between the items of the analysis is an identity matrix; a matrix whose main diagonal is made up of some (correlation of the item with itself) and the rest are zeros (the correlations between the items are null). To reject this hypothesis means the acceptance of significant correlations between the items. A chi-squared type of statistic is used and it is constructed from the matrix of the correlations, measuring the distance of this matrix from the identity matrix. The value obtained is 2227.026 which, with degrees of freedom = 136, takes a p value of = 0.0000..., which leads us to reject the null hypothesis. That is to say, the matrix of correlations is not an identity matrix, there existing significant correlations. This is one more element of judgment to consider the data available to be appropriate to proceed to the factor analysis.

KMO (Kaiser-Meyer-Olkin) measurement of sample appropriateness. This is an index which takes values between 0 and 1. It is used to compare the magnitudes of the correlation coefficients observed between the items with the magnitudes of the partial correlation coefficients between these same items. Thus, if the sum of the squares of the partial correlation coefficients between all the pairs of variables is small

in comparison with the sum of the squared correlation coefficients, this measurement tends to one. For Kaiser (1974), the results of the factor model will be excellent if the KMO index is between 0.9 and 1; good, if it is between 0.8 and 0.9; acceptable, if it is between 0.7 and 0.8; poor or moderate, if it is between 0.6 and 0.7; bad, if it is between 0.5 and 0.6; and unacceptable or very bad, when it is less than 0.5. In our case, the KMO = 0.842.

Therefore, according to the two previous criteria, the data which we have are acceptable for the factor analysis.

Table 8
Results of the exploratory factor analysis

	IIC	ISCCS	GC	PC	MA
Generic Competences (GC)					
Typical of the degree	0.328	0.176	0.711	0.160	-0.160
Verify knowledge	0.327	0.145	0.801	0.152	-0.172
Bridge the theoretical-practical gap	0.203	0.074	0.766	0.263	-0.153
Importance Instrumental Competences (IIC)					
Organisation time	0.788	0.126	0.166	0.172	-0.068
Planning	0.870	0.126	0.126	0.210	-0.048
Database management	0.589	0.099	0.240	0.187	-0.086
Verbal communication	0.605	0.090	0.186	0.222	0.020
Written communication	0.735	0.183	0.193	0.173	-0.001
Methodological Acceptation (MA)					
Mentoring gets me down	-0.057	-0.141	-0.100	-0.089	-0.726
I prefer teaching	-0.030	-0.102	-0.107	-0.125	-0.673
FYD mentoring disrupts my academic activity	-0.016	-0.068	-0.087	-0.036	-0.782
Importance of Systemic Competences (ISC)					
Creativity	0.224	0.717	0.271	0.077	-0.138
Management by objectives	0.358	0.864	0.087	0.083	-0.161
Management of projects	0.308	0.783	0.264	0.076	-0.106
Perception of Competences (PC)					
I feel competent	0.185	0.120	0.058	0.911	-0.146
I've got enough training	0.172	0.094	0.065	0.899	-0.177
I master the competences	0.104	0.066	0.064	0.783	-0.107

Source: Own elaboration

To these constructs we add that of “satisfaction” which is our study’s target variable.

4.2. Hypotheses

The hypotheses which are to be verified are: *Inasmuch as lecturers perceive that they are trained and qualified to direct an FYD and that they master the competences which are demanded from the students to do the FYD:*

- H1.** *They feel less averse to accepting and doing the mentoring process.*
- H2.** *They perceive the importance of the student developing generic, instrumental and systemic competences when doing the FYD.*
- H3.** *The fact that these competences are related directly or indirectly and that they are going to be developed by the student increases the lecturer’s satisfaction.*

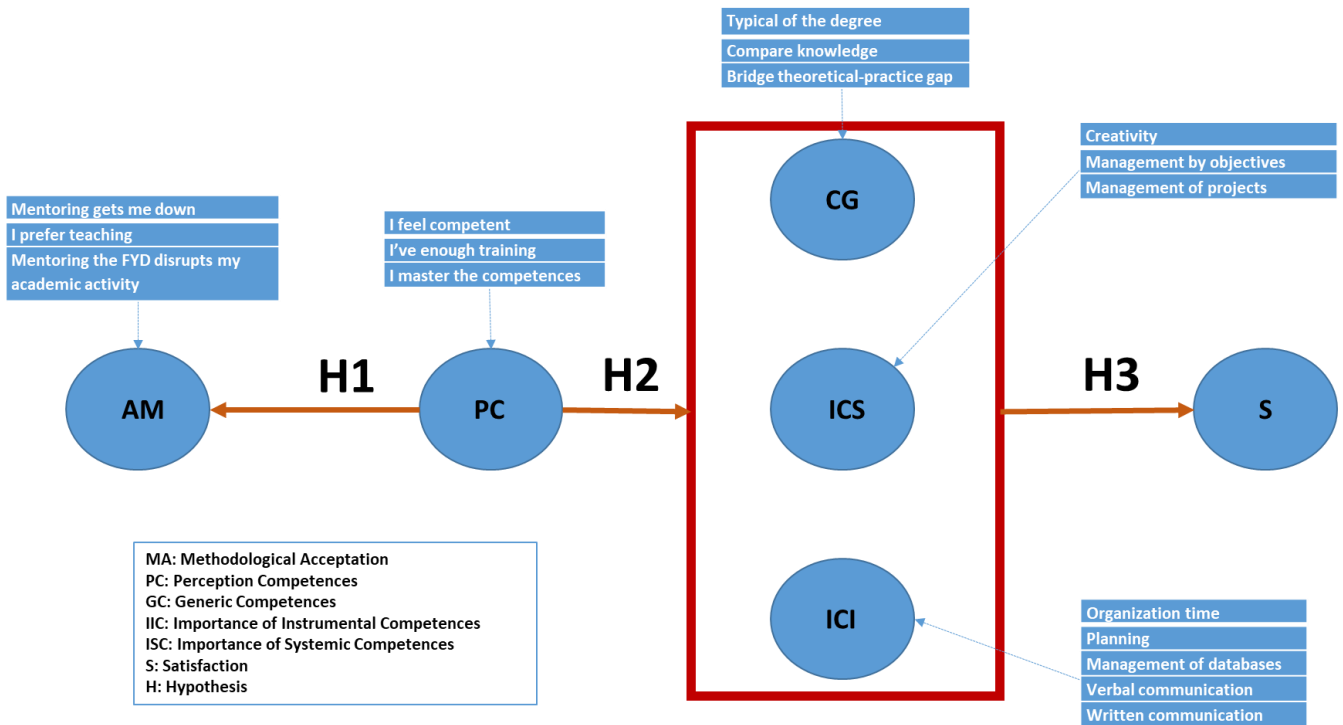
Figure 1 shows the model which represents the proposed hypotheses:

4.3. Model

We mean to construct a structural equations model which reflects the relations of implication of the five constructs and their impact on the lecturers’ satisfaction, which is the research target.

Our research model has been tested using Partial Least Squares (PLS), a variance-based structure equations model (Roldán & Sánchez-Franco, 2012). We have chosen PLS because (1) the phenomenon studied is relatively new or, it would be better to say, because the phenomenon studied is

Figure 1
Model of the hypotheses



Source: Own elaboration

in a budding stage; (2) the study's approach is both explanatory and predictive of the main dependent variable; (3) the sample ($n = 247$) is moderately large; (4) the research model is complex according to the type of relation (direct and mediating) within the hypotheses and the levels of dimensionality; and (5) this research defines the nature of the main variable which is our theoretical objective (that is to say, satisfaction). This implies that the study is based on a measurement model made up of an approach to the reflexive design, which means that the indicators and dimensions represent different facets, although there exist correlations between them. Lastly, the reflexive design is the recommendable option for the prediction out of the sample when the sample size is not excessively large and there exists a correlation between the indicators and the dimensions (Becker, Rai, & Rigdon, 2013). Therefore, the use of traditional PLS is advisable (Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016). This study used the SmartPLS 3.2.4 software (Ringle, Wende, & Becker, 2015).

Moreover, there exist minimum recommendations relative to the sample size and the PLS algorithm converges in the majority of the cases, attaining a great statistical power even with small samples and it is robust concerning absent data (Henseler, Ringle, & Sinkovics, 2009).

17 items of the questionnaire affect the study of satisfaction. The respondents not committed and those who had more than 8% of the answers absent or missing were eliminated when sifting the data. For the rest of the absent values, their imputation was carried out using the EM algorithm (Expectation Maximisation Algorithm). The averages of the answers were compared with the items through the t test for the case of the sex, of the work category and work experience. These did not detect significant differences in the averages of the answers. Furthermore, the asymmetry and the kurtosis were examined for each of the items, as has been noted, in absolute value being less than 1.3 in the case of asymmetry and 1.5 in that of kurtosis.

4.4. Measurement model

The evaluation of the measurement model of the reflexive indicators in PLS is based on four angles: the reliability of the individual items, the reliability of the constructs, the convergent validity and the discriminant validity (Roldán & Sánchez-Franco, 2012). The reliability of each item is considered appropriate in this study because all the indicators and dimensions have loadings over 0.650 (Table 9). All the constructs, dimensional and multidimensional, fulfil the requirement of reliability as all their composite reliabilities are greater than 0.7 (Table 9). We examine the average variance extracted (AVE) to evaluate the convergent validity. All the latent variables attain a convergent validity given that their AVEs surpass the level of 0.5 (Table 9). We add to the table the Variance Inflation Factors (VIF) of each item in the regression which defines the associated construct. We keep in mind that the minimum value is 1, and values greater than 10 can indicate problems of collinearity.

Table 10 shows how all the constructs attain discriminant validity following the Fornell-Larcker criterion (1981). The elements of the diagonal, in bold, are the square roots of the variance common between the constructs and their measurements (AVE). For discriminant validity the diagonal elements have to be greater than those that are extra diagonal. The extra diagonal elements are the correlations between constructs.

In Table 11 this validity is analysed according to the heterotrait-monotrait ratio of correlations criterion (HTMT), (Henseler, Ringle, & Sarstedt, 2014), which is stricter (Hair, Hult, Ringle, & Sarstedt, 2017). This means that all the constructs are empirically distinct (Henseler, Ringle, & Sarstedt, 2015).

This criterion indicates that discriminant validity exists when the correlations between the constructs are less than 0.70. It is a criterion that is especially recommended in small samples. To sum up, with the measurement model we con-

Table 9
Evaluation of the measurement model

Construct/dimension/indicator	Loadings	Composite reliability	Average variance extracted (AVE)	VIF
Methodological acceptance (MA)		0.853	0.659	
I prefer teaching	0.837			1.43
Mentoring gets me down	0.770			1.38
Mentoring the FYD disrupts my academic activity	0.827			1.46
Generic competences (GC)		0.936	0.829	
It helps to develop its own skills or those linked to the degree	0.880			2.19
It helps to compare the knowledge learnt in the classroom with its application in real situations	0.937			2.92
It helps to bridge the gap between theory and practice	0.914			2.50
Perception of competences (PC)		0.907	0.685	
I feel competent to mentor the FYD	0.921			5.11
I've got enough training to mentor the FYD	0.944			5.00
I master the competences expected from the students to do the FYD	0.748			1.76
Importance Instrumental Competences (IIC)		0.915	0.739	
Organisation of time	0.858			2.15
Planning	0.879			2.53
Database management	0.728			1.41
Verbal communication	0.803			1.64
Written communication	0.860			1.94
Importance Systemic Competences (ISC)		0.894	0.767	
Creativity	0.745			1.67
Management by objectives	0.914			3.05
Management of projects	0.910			2.72
Satisfaction (S)		1.000	1.000	
Satisfaction	1.000			

Source: Own elaboration

Table 10
Discriminant validity of the measurement model according to the Fornell-Larcker criterion

	MA	GC	IIC	ISC	PC	S
MA	0.812					
GC	-0.286	0.911				
IIC	-0.140	0.467	0.827			
ISC	-0.174	0.514	0.647	0.860		
PC	-0.295	0.242	0.189	0.212	0.876	
S	-0.466	0.569	0.313	0.312	0.215	1.000

Source: Own elaboration

Table 11
Discriminant validity of the model according to the heterotrait-monotrait ratio of correlations (values HTMT0.90)

	MA	GC	IIC	ISC	PC
MA					
GC	0.353				
IIC	0.177	0.521			
ISC	0.226	0.601	0.557		
PC	0.366	0.275	0.206	0.244	
S	0.543	0.601	0.335	0.344	0.230

Source: Own elaboration

firm that the items correlate with the constructs giving, in our case, values which show their reliability.

4.5. Structural Model

Validation of the scales

The Cronbach alpha (Cronbach, 1951) for each block of variables used has been calculated to validate the measurement scales. In a complementary fashion, to study the valid-

ity an analysis of principal components has been done of each block of variables to estimate each of the constructs as the first principal component of each block. Having the estimation of the constructs, the correlation of each item with its construct has been calculated (loadings, Table 9) and with the other constructs (crossed loadings), to check that no item "loads" more on any unrelated construct than on its own.

Table 12 shows the Cronbach alpha for each of the six blocks of items. These are sufficiently high, all above the threshold of 0.70 (Nunnally, 1978), the minimum being 0.740, for the Methodological Acceptation. The composite reliability of each block of items has also been calculated. This is considered more precise than the Cronbach alpha as it avoids the assumption of the same weighting of the items (tau equivalence). All the composite reliabilities have been greater than the corresponding Cronbach alphas, all of them being over 0.85.

Table 12
Cronbach alpha and Composite Reliability of the constructs of the model

	Cronbach alpha	Composite Reliability
MA	0.740	0.853
GC	0.897	0.936
IIC	0.884	0.915
ISC	0.819	0.894
PC	0.845	0.907
S	1.000	1.000

Source: Own elaboration

The sign, the size and the significance of the coefficients of the structural model, the R² values and the Q² test for the predictive relevance initially permit an evaluation of the structural model.

In Table 13 we show the R², Q² and Cohen f² values. The goodness of a model is determined through the goodness of each of the structural relations, which are measured with the R² for each endogenous construct. According to Falk and Miller (1992), these values have to be over 0.1 to be able to consider that the model has sufficient predictive capacity. The cross-validation redundancy index for endogenous reflexive constructions (Q²) can be effectively used as a criterion for the predictive relevance (Geisser, 1975; Stone, 1974). Based on the blindfolding procedure, Q² evaluates the predictive validity of a complex model using PLS. While the parameters of a model are estimated with the blindfolding procedure, this technique omits data for a block of given indicators and then predicts the part omitted based on the parameters calculated. Therefore, Q² shows how the empirically collected data can be reconstituted with the help of the PLS model and parameters. A Q² greater than 0 implies that the model has predictive relevance.

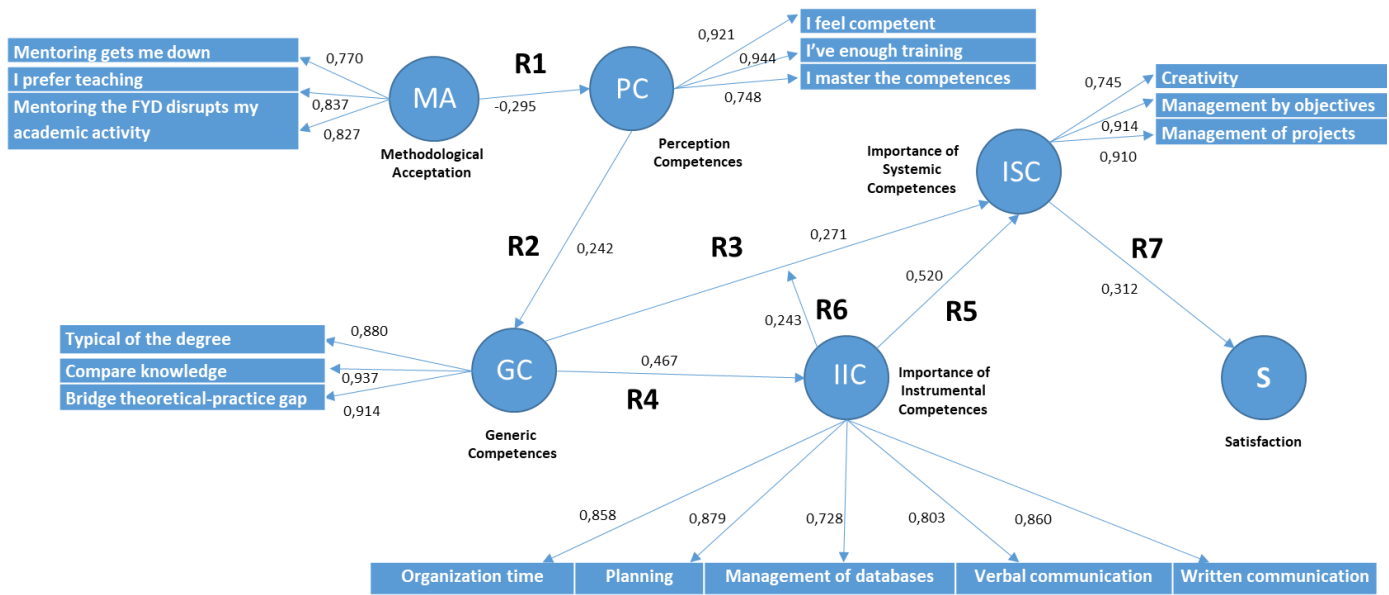
Table 13
Validations of endogenous variables

Endogenous variables	R ²	Q ²	f ²
Generic competences	0.159	0.045	0.095
Importance Instrumental Competences	0.218	0.126	0.278
Importance Systemic Competences	0.476	0.322	0.404
Perception of competences	0.108	0.060	0.108
Satisfaction	0.197	0.089	0.082

Source: Own elaboration

Furthermore, with the exception of the variable "Methodological Acceptation" as an explanatory construct of "Perception of Competences", the rest of the variables represent

Figure 2
Estimated model of structural equations in which the standardised slopes are included



Source: Own elaboration

key preceding constructs of their respective dependent variables. This is supported after analysing the Cohen f^2 values, which are far above the base level of 0.02 (Roldán & Sánchez-Franco, 2012).

In accordance with Hair et al. (2017), bootstrapping (10,000 subsamples) was used to generate t statistics and confidence intervals. This enabled us to evaluate the statistical significance of those coefficients. All the direct effects described in Figure 1 are significant.

The predictive measurement for the block is based on the parameters of Table 14.

Table 14
Effects on the endogenous variables (Figure 2)

Relations	Direct effect	t statistic (in absolute value)	95% Confidence interval bootstrap
MA→PC	-0.295***	5.405	[-0.391; -0.175] Sig.
PC→GC	0.242***	4.166	[0.122; 0.353] Sig.
GC→IIC	0.467***	8.074	[0.338; 0.571] Sig.
GC→ISC	0.271***	5.268	[0.168; 0.370] Sig.
IIC→ISC	0.520***	9.439	[0.407; 0.623] Sig.
ISC→S	0.312***	5.744	[0.198; 0.412] Sig.

Source: Own elaboration
Sig.: significant interval excluding 0
***: significant at 1%

The results summarised in Table 14 confirm that the structural model has satisfactory predictive relevance for all the endogenous constructs (see Figure 2). Lastly, we have calculated the standardised root mean square residual (SRMR) of our model, defined as the average square discrepancy between the correlations observed and the model's implicit correlations (Henseler, Hubona, & Ray, 2016). Our research model attains an SRMR of 0.054, which means an appropriate fit taking into account that less than 0.08 is usually required.

Consequently, addressing the results of Table 14, the proposed study hypotheses are accepted, as the following relations occur: R1: MA→PC, R2: PC→GC, R3: GC→ISC, R4: GC→IIC, R5: IIC→ISC and R7: ISC→S.

We incorporate the indirect effect of GC on ISC into Table 15. This effect is calculated as a product of the slopes of

GC→IIC and IIC→ISC. Both slopes are significant (Table 14) and the product of the two is 0.243. This is significant and key to determine this mediator effect and generates R6 (Hayes, 2009). Therefore, we accept a partial mediation of IIC (Importance Instrumental Competences) between GC (Generic Competences) and ISC (Importance of Systemic Competences), as both the slope GC→ISC and the product of the slopes cited before are significant (Baron & Kenny, 1986). Moreover, we have calculated the variance which the VAF index represents (Variance accounted for) (Hair, Hult, Ringle, & Sarstedt, 2014), which determines the indirect effect size (product of the two slopes) in relation with the total effect. When the VAF has a result between 20% and 80%, this fact reveals the expectation of a partial mediation. This is given in the situation that we are dealing with, as the VAF for the indirect effect is 47.18% (Table 15).

Table 15
Indirect effect on ISC

	Point estimation	t statistic	Confidence interval 95% bootstrap	VAF
Relation 6	0.243***	5.746	[0.157; 0.327] Sig.	47.18%

Source: Own elaboration
ISC: Importance Systemic Competences

Lastly, we add the Variance Inflation Factors (VIF) associated with the structural model (Table 16), in which it is observed that there is not a problem of collinearity in the relation of the generic competences (GC) and the importance of instrumental competences (IIC) when relating them with the importance of systemic competences (ISC).

Table 16
VIF values of the structural model

	GC	IIC	ISC	PC	Satisfaction
MA				1.000	
GC		1.000	1.278		
IIC			1.278		
ISC					1.000
PC	1.000				

Source: Own elaboration

5. Results

University accounting lecturers have a low satisfaction when mentoring the FYD. The study constructs a structural equations model in which it is revealed that the satisfaction of the lecturers is related with the involvement of five constructs: methodology acceptance, perception of competence, generic competences, importance of instrumental competences and importance of systemic competences.

The model obtained is reflective and great correlation is observed a between the five constructs, each indicator representing an aspect itself of the lecturer's perception and any of them is explanatory of the objective variable; that is to say, satisfaction.

The structural equations model obtained accepts the proposed hypotheses (Figure 1); that is to say, when the lecturers perceive that they are trained and competent to direct the FYD and that they master the competences which are demanded from the student to develop it, they feel less aversion to accepting and doing the mentoring process (Hypothesis 1) as they perceive the importance of the student developing the generic, instrumental and systemic competences (Hypothesis 2). Perceiving that these are going to be developed by the student affects their degree of satisfaction (Hypothesis 3), so they develop expectations of self-efficacy or perceived effectiveness (Bandura, 1982).

For the analysis of the results we base ourselves on the values of the loadings of the individual items (Table 9) and of the relations between constructs established in Tables 14 and 15, referring to the effects on the endogenous variables and on the slopes having a marginal and significant effect ($p < 0.01$). Figure 2 graphically represents these relations.

Relation 1 (R1): The construct "methodological acceptance, MA" has a negative correlation (reverse relation) with the construct "perception of competences, PC".

Three items significantly load on the MA (Table 9). In order of importance, the one which has the greatest slope, and therefore the greatest influence in its construction, is the *preference to teach* (0.837), followed by *mentoring the FYD disrupts my academic activity* (0.827) and, lastly, *mentoring gets me down* (0.70). These values together with the averages of perception of Table 5, with values of 3.7, 2.9 and 2.5, respectively indicate that the lecturers prefer teaching to mentoring the FYD although the mentoring, to a lesser extent, disrupts their academic activity and gets them down.

As to the PC, the items which significantly load (Table 9) are by importance: *I have sufficient training to carry out the mentoring of the FYD* (0.944), *I feel competent* (0.921) and *I master the competences which are required from the student to do the FYD* (0.748). Related with their averages of perception (4.4, 4.4 and 4.1) of Table 5, they show that the lecturers perceive that they are trained and competent to direct the FYD and that they master the competences.

The study supports the existence of a reverse relation between the MA and the PC (slope of -0.295). The negative sign of the relation is justified by the definition of the items which are the reflection of the first construct, where the scale goes from less to more inconvenience, while in the other constructs employed in this research the items use a scale of less to more agreement. Consequently, inasmuch as the values of the PC increase, they feel less averse to accepting and doing the mentoring, although they feel that to a certain extent it disrupts their academic activity and gets them down. In this line the skills of the lecturers to adapt to the competences which are required from the student are essential (Koster, Brekelmans, Korthagen, & Wubbels, 2005).

Therefore, the result of Relation 1 (R1) validates Hypothesis 1 (H1):

*Inasmuch as lecturers perceive that they are trained and qualified to direct an FYD and that they master the competences which are demanded from the students to do the FYD:
H1. They feel less averse to accepting and facing the tutoring process.*

Relation 2 (R2): The construct "perception of competences, PC" has a direct relation (positive correlation) with the construct "generic competences, GC".

In GC significantly load (Table 9) and in order of importance: *helps to verify the knowledge learnt in the classroom with its application in real situations* (0.937), *helps to bridge the gap between theory and practice* (0.914) and *helps to develop own skills or those linked to the degree* (0.880) with perceived average values of 3.7, 3.7 and 3.8. This indicates the degree of importance which the lecturer gives it.

R2 sustains that inasmuch as the lecturers perceive their greater level of competences to tutor a FYD, they give greater importance to the FYD developing GC (slope of 0.242). Therefore, they perceive that the FYD is useful for the students as it helps them to develop skills typical of the degree and helps them to contrast the theoretical knowledge learnt in the classroom with its application in real situations, bridging the gap between theory and practice. Therefore, a greater competence of the mentor generates a greater interest in the students acquiring these competences (Baumert et al., 2013).

The PC provides its relation with the importance of the competences, which is related with Hypothesis 2. The generic, instrumental and systemic competences are considered closed block factors of influence, being related between each directly or indirectly (Figure 1). The perception which lecturers have about the importance of the GC marks the importance that they give to the student developing instrumental and systemic competences (Relations 3 and 4), and in turn the IIC directly connects with the ISC (Relation 5) and indirectly with the relation which exists between the GC and the ISC (Relation 6).

Relation 3 (R3): The construct "generic competences, GC" has a direct relation (positive correlation) with the construct "importance of systemic competences, ISC".

On the ISC significantly load (Table 9), the *management by objectives* (0.914) and the *management of projects* (0.910) and less solidly *creativity* (0.745), with its average perceptions (Table 4) de 3.69, 3.63 and 3.74: This shows the importance given by the lecturer.

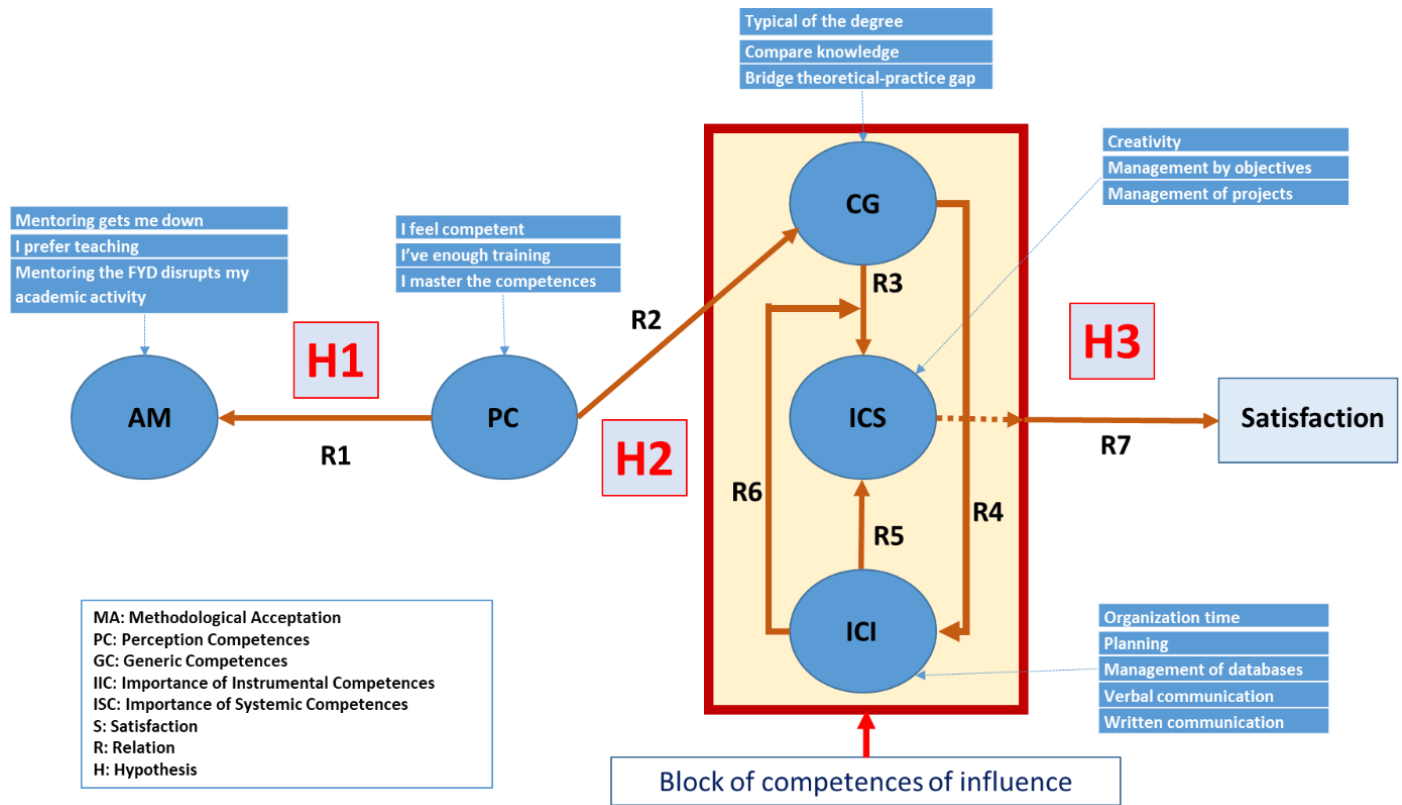
R3 reveals how inasmuch as the lecturers perceive the importance of the GC, the importance which they give to the students developing systemic competences directly increases (slope of 0.271). Therefore, positively valuing the generic competences significantly accentuates the importance which the lecturers confer to the development, by the students, of the management by objectives, of projects and creativity.

Relation 4 (R4): The construct "generic competences, GC" has a direct relation (positive correlation) with the construct "importance of instrumental competences, IIC".

On IIC significantly load (Table 9), *the planning* (0.879), *written communication* (0.860) and *organisation of time* (0.858). Their average perceptions (Table 3) of 4.28, 4.43 and 4.19 show the importance given by the lecturer.

R4 places in direct relation the importance of the GC with the IIC. Inasmuch as the lecturers perceive the importance of the GC, this directly increases (slope 0.467) the importance which they give to the students increasing instrumental

Figure 3
Modelling of satisfaction



Source: Own elaboration

competences and, therefore, the importance which they give to the students developing the capacity of organisation of time (4.19), planning (4.28), the management of databases (4.14), verbal (4.16) and written communication (4.43).

Relations 5 and 6 (R5 and R6): Shows how the construct “importance of instrumental competences, IIC” has a direct relation (positive correlation) with the construct “importance of systemic competences, ISC” and also influences the relation between the construct “generic competences, GC” and the construct “importance of systemic competences, ISC”.

As a consequence of the observation of the direct relations R3 and R5, we check that the instrumental competences impact positively and significantly on the ISC in a double way: a direct relation (R5) with a slope of 0.520 and an indirect relation through the R3 which provides the R6 (slope 0.243).

The lecturer sees that the instrumental competences triangulate with the generic competences and the systemic competences. This reinforces the idea that the lecturer does not consider the importance of the generic, systemic and instrumental competences in an isolated manner, but as a closed block of influence. It is true that if we go into the individual items loads of differentiated importance are conferred to it, but the model is constructed globally.

The result presented in the relation R2, R3, R4, R5 and R6 validates Hypothesis 2 (H2):

Inasmuch as lecturers perceive that they are trained and qualified to direct an FYD and that they master the competences which are demanded from the students to do the FYD: H2. They perceive the importance of the student developing generic, instrumental and systemic competences when doing the FYD.

Relation 7 (R7): The construct “importance of systemic com-

petences, ISC” has a direct relation (positive correlation) with the variable “satisfaction”.

In the model, it is the ISC which reveals the final direct correlation with the lecturers’ satisfaction in their mentoring work, with a slope of 0.312.

At this moment, the question is: is the ISC the unique determinant factor of satisfaction? With the values obtained via discriminant validity (Tables 10 and 11), we can state that each one of the constructs of competences, independently, is useful when explaining the variable satisfaction. This means that not only is satisfaction justified with this last relation (R7) but, addressing the sustaining of Hypothesis 2 (H2), the lecturer conceives the set of competences as a complete block of influences on satisfaction, with direct and indirect relations on the target variable.

To sum up, the block made up of the set of the competences (GC, IIC and ISC) (Figure 1), related directly or indirectly, validate their relation with the target objective, satisfaction. The model does so through the ISC (Figure 2), validating Hypothesis 3 (H3).

Inasmuch as lecturers perceive that they are trained and qualified to direct an FYD and that they master the competences which are demanded from the students to do the FYD: H3. The fact that these competences are directly or indirectly related and that they are going to be developed by the student increases the lecturer’s satisfaction.

With the result of the modelling (Figure 3), how does the model interpret the low satisfaction which the accounting university lecturers have in their process of mentoring the FYD (2.9)? The model shows how lecturers who are preparing competences to mentor FYDs (average perception of 4.3, Table 5) are not currently perceiving that doing this is satis-

factorily developing in the student the level of competences that they consider appropriate. The lecturers perceive that the block of competences offers unsatisfactory results. In generic competences, the FYD is not helping to develop in the student the degree's skills and nor is it contrasting the knowledge learnt in the classroom with its application in real situations. With respect to the instrumental and systemic competences, the dissatisfaction is revealed by the differential of importance and level. Thus, with the instrumental competences, with an average difference of 0.67 (Table 3), the lecturers consider that doing the FYD is not contributing to the students improving planning and organisation of time, nor is it favouring their improving their capacity of writing. Lastly, in systemic competences, with a differential of 0.71 (Table 4), the lecturers are not satisfied with how the students are managing the project and the objectives set out in the FYD. All the block of competences, for their low level of execution, means that the lecturers have low general satisfaction when facing the process of mentoring the FYD (2.9).

6. Conclusions

We find the answer to the question of which factors influence the degree of the lecturer's satisfaction when facing the process of tutoring the FYD in the model elaborated via structural equations. The exploratory factor analysis defines 5 constructs which are used in the later modelling (Figure 2). The model answers the question: *"The university accounting teachers' satisfaction in relation with the work of mentoring the FYD comes through the importance that they confer to the competences (generic, instrumental and systemic) which the FYD is going to develop in the students. Inasmuch as they consider that this development is going to be high, their level of satisfaction increases"*.

Consequently, we conclude that the level of satisfaction of university accounting teachers in their work of mentoring the FYD is directly related with the perception that they have about the competences that the students are going to develop when they do it. In this sense, their training in competences is decisive for this valuation, as the more developed these skills are, the more they consider the importance of them for the students. Generic, instrumental and systemic competences are those which make up the block of influence. So, their satisfaction increases when they perceive that the work helps the students to contrast the knowledge learnt in the classroom with real situations and bridge the gap between theory and practice, when the student develops the command of planning, written communication and organisation of time and, lastly, doing the FYD trains the students in the management by objectives and of projects. To sum up, the lecturers improve their satisfaction when they feel that the students have faced a topic related with professional reality and that during the elaboration of the work they have learnt and applied competences of planning and management of objectives, content and time.

The implication of the conclusion is that if we wish to construct a teaching strategy concerning the process of mentoring the FYD which reinforces the lecturers' degree of satisfaction, this must come through enhancing the set of competences presented.

In the area of contributions, the work collaborates in reducing the gap between research into accounting teaching and teaching practice. These works are well received by the research literature on accounting teaching as they offset the concern revealed by authors such as [Apostolou et al. \(2019\)](#), [Jackling, Natoli, Nuryanah, and Ekanayake \(2013\)](#),

[Ravenscroft, Rebele, St. Pierre, and Wilson \(2008\)](#) and [Rebele and St. Pierre \(2015\)](#).

Also, the work contributes to opening the research line on modelling university teachers' satisfaction in the context of the use of active participation methodologies. Specifically, to generate satisfaction in methodologies such as project, case and work-based learning. Likewise, it helps the success of the lecturer-student relation in the processes which involve help, assessment and mentoring. In the same way, the model has the potential to be used in studies of new research on a greater scale and in other knowledge areas.

At the same time, the work has many possibilities to be used in measurements of students' satisfaction doing the FYD and serve as a contrast to works already done in this line, such as the study of [Del Río, Díaz-Vázquez, and Maside Sanfiz \(2017\)](#) which, following the same methodology of structural equations but applied to the students, accepts the hypothesis that competences developed by the students in their interaction with their supervisors increase their satisfaction.

In the same line, the model is compatible for studies which compare the same variable, satisfaction for the lecturer and for the student, in the search for elements of coincidence and difference ([Castro, Prats, & Arànega, 2013](#); [Jamieson & Gray, 2006](#)).

Limitations

As well as the limitations inherent to a study based on self-administered questionnaires and the use of a Likert scale, are those related with the sample's characteristics, which only uses one country's university accounting teachers. This can limit the generalisation of the findings beyond this sample.

Utilising factor analysis, necessary to use the structural equations, can be a limitation in research works that use this statistical methodology as it restricts the factors of influence to a few constructs, which group a set of elements. This means that information that could have been significant is lost.

The fact that studies of modelling university teachers' satisfaction in the context of the use of active participation methodologies and, specifically, in mentoring FYDs have not been done makes it difficult to precisely value the work's contribution.

Acknowledgment and dedication

The authors of this article want to dedicate it to the memory of our colleague and friend Mr. Jesús Manuel Vera Giménez (1958-2019), a pioneer in research in final year dissertations, and a professional and human role model.

Agradecimiento y dedicatoria

Los autores de este artículo queremos dedicarlo a la memoria de nuestro compañero y amigo D. Jesús Manuel Vera Giménez (1958-2019), precursor en la investigación en trabajos de fin de grado, siendo un modelo a seguir profesional y humanamente.

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Conflict of interests

The author declare no conflict of interests.

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ANNEX 1

Centres where the responses to the questionnaires came from

University	N	%	University	n	%
A Coruña	3	1.2	La Rioja	3	1.2
Alcalá de Henares	6	2.4	Las Palmas de Gran Canaria	2	0.8
Alicante	1	0.4	León	13	5.3
Almería	2	0.8	Loyola Andalucía	8	3.2
Autónoma Barcelona	2	0.8	Málaga	4	1.6
Autónoma de Madrid	1	0.4	Miguel Hernández	1	0.4
Burgos	5	2	Murcia	7	2.8
Cádiz	9	3.6	Oviedo	13	5.3
Cantabria	3	1.2	Pablo Olavide	14	5.7
Carlos III	2	0.8	País Vasco	10	4
Castilla-La Mancha	1	0.4	Politécnica de Cartagena	4	1.6
Católica de Valencia	2	0.8	Pontificia de Comillas	1	0.4
CEU San Pablo	1	0.4	Pública de Navarra	1	0.4
Complutense de Madrid	7	2.8	Rey Juan Carlos	2	0.8
Deusto	1	0.4	Rovira i Virgili	1	0.4
Europa de Valencia	2	0.8	Salamanca	3	1.2
Extremadura	9	3.6	Santiago de Compostela	6	2.4
Girona	8	3.2	Sevilla	46	18.6
Granada	10	4	UDIMA	1	0.4
Huelva	3	1.2	UNED	2	0.8
Illes Balears	9	3.6	Valencia	5	2
Jaén	3	1.2	Valladolid	2	0.8
Jaume I	2	0.8	Vigo	2	0.8
La Laguna	1	0.4	Zaragoza	3	1.2
Total				247	100

Given that 18.6% of the sample belongs to the University of Seville, one may think that there is some limitation in the analysis of the results. But two groups of lecturers have been defined, those of the University of Seville, with 46 lecturers ($n_1 = 46$), and the rest of the lecturers ($n_2 = 201$), and comparison contrasts of averages for the different items have been carried out using the t statistic. Almost all the tests do not note significant differences between the two groups. Thus, in our research's target variable, satisfaction, with a global average of 2.8, we find that an average of 2.71 is obtained for group 1 and 2.83 for the rest. This generates a t statistic whose value is 0.5258 for the supposition of equality of variances, given that the Levene test does not detect differences in these variances, in spite of the difference existing in the two sample sizes. The p values associated with this value of the statistic for 124 degrees of freedom is 0.400034; that is, non-significant differences

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{n_1 \cdot s_1^2 + n_2 \cdot s_2^2}{n_1 + n_2 - 2} \cdot \frac{n_1 + n_2}{n_1 \cdot n_2}}} = \frac{2.83 - 2.71}{\sqrt{\frac{95 \cdot 1.174^2 + 31 \cdot 0.803^2}{95 + 31 - 2} \cdot \frac{95 + 31}{95 \cdot 31}}} = 0.5258$$