

Career guidance, employability, and entering the workforce at University through a Structural Equation Model

Orientación, empleabilidad e inserción laboral en la Universidad a través de un Modelo de Ecuaciones Estructurales

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Abstract:

This research presents a hypothetical model regarding university students' perceptions of their current preparation for entering the workforce that uses a structural regression model to connect various aspects regarding training, satisfaction, information, and career guidance programs. Its research objectives are to establish the goodness of fit of the model, analyse the relationships established among the variables, and compare the effect of career guidance on these variables. To this end, a representative sample of 931 final year undergraduate students from the Universidad de Murcia and the Universidad de Granada from a range of degrees and branches of knowledge participated anonymously and voluntarily by completing an *ad hoc* questionnaire (named *COIL*). The AMOS v21 program was used to analyse the data and estimate the relationships established among the different variables of the model. Elevated model fit indexes stand out among the main results obtained, corroborating its design using the empirical data, as well as statistically

significant causal relations in all cases analysed. In addition, introducing participation in professional guidance programs as a grouping variable strengthens these causal relationships. These results emphasize the role of career guidance as a key connection between higher education and employment at a time of change and transition to the workforce for university students where difficulties are not measured by the benefits achieved but rather by the permanent configuration of the changing and ambiguous social context in which they must make this transition.

Keywords: higher education, entering the workforce, school-to-work transition, career guidance, employability, structural equations models, undergraduate students.

Resumen:

En este trabajo se propone un modelo hipotético acerca de la valoración que presentan los

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universitarios sobre su actual preparación para hacer frente al proceso de inserción sociolaboral. Se trata de un modelo de regresión estructural que pone en relación diferentes variables relacionadas con la formación, la satisfacción, la información y la orientación profesional del estudiante, entre cuyos objetivos de investigación se encuentra determinar la bondad de ajuste del modelo, analizar las relaciones que se establecen entre las variables y contrastar el efecto de la Orientación Profesional sobre las mismas. Para ello, participan de forma anónima y voluntaria una muestra representativa de 931 estudiantes de último curso de Grado de la Universidad de Murcia y de la Universidad de Granada, distribuidos en diferentes titulaciones y ramas del conocimiento, a partir de la cumplimentación del *Cuestionario de Inserción y Orientación Laboral* (COIL), diseñado *ad hoc*. Para realizar el análisis de los datos y estimar las relaciones que se establecen entre las diferentes variables del modelo, se utiliza el programa AMOS v21. Entre los principales

resultados obtenidos, destacan los elevados índices de bondad de ajuste del modelo, que corroboran su diseño con los datos empíricos, así como las relaciones causales estadísticamente significativas en todos los casos analizados. Además, se produce un incremento en dichas relaciones causales al introducir la participación obligatoria y/o voluntaria en programas de orientación profesional como variable de agrupación. Unos resultados que enfatizan el rol de la orientación como eje vertebrador entre la formación superior y el empleo, en un momento de cambio y transición a la vida activa de los universitarios donde las dificultades no se miden tanto por los beneficios conseguidos, sino por la permanente configuración de un contexto social cambiante y ambiguo en el cual deben realizar dicha transición.

Descriptor: educación superior, inserción laboral, transición a la vida activa, orientación profesional, empleabilidad, modelos de ecuaciones estructurales, universitarios.

1. Introduction

Young people's transition to working life, based on the adapting to the real world and shaped by individuals' decisions about their career and life plans (Santana Vega, 2010) is very important nowadays, thanks to the great opportunities and choices offered to a generation that is better trained than previous ones, and, paradoxically, because of the major challenges and the complexity that accompany them in contemporary society. This is a society that authors such as Bennett and Lemoine (2014) and Hemingway and Marquart (2013) have defined as the *VUCA World*, from the initials of its four

basic characteristics: *volatility*, with frequent and unpredictable changes; *uncertainty*, as there is a lack of knowledge of potential major consequences; *complexity*, owing to vast amounts of interconnected information, relationships, and procedures; and *ambiguity* preventing people making predictions about what to expect.

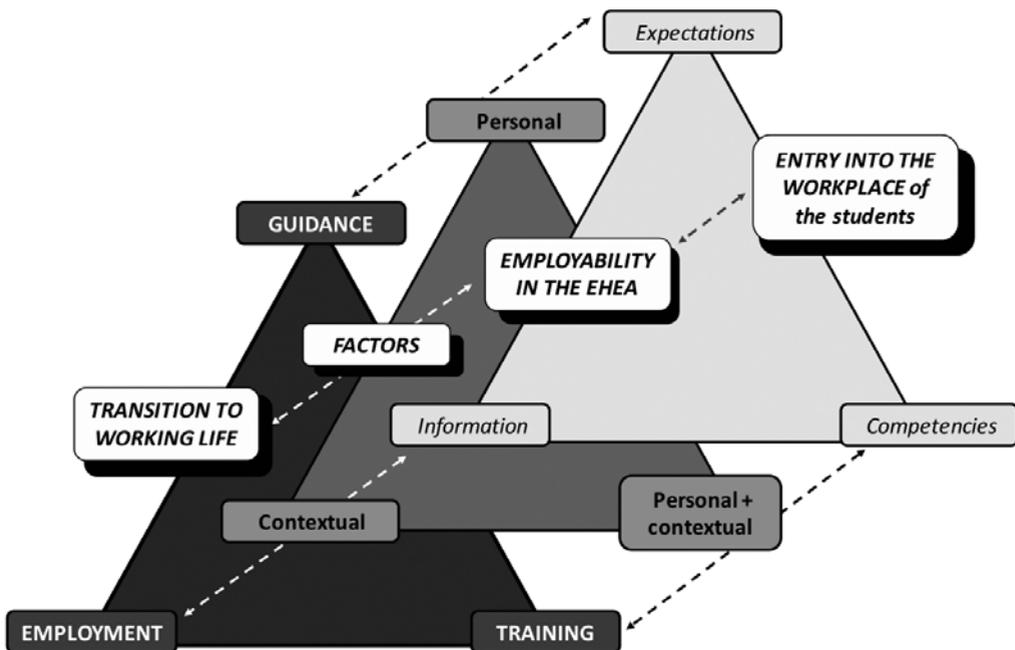
This transition, among university students, must happen in a slow and measured way, and achieving this requires specific learning that affects the whole university experience in its different levels and contexts, as Coles (1995), Jones (1995, 2002), and Moreno (2008) note.

Transition processes at present vary, are slow, and are marked by successive discontinuities and ruptures with the result that young people experience them as reversible and non-linear in their training and professional pathways.

This transition to working life has become one of the most important phenomena in the economic and work development of our society. It is a constant concern in national and international settings (Bathmaker and Thomas, 2009; García Moreno and Martínez Martín, 2012; Harris and Rainey, 2012; OECD, 2016; Sissons

and Jones, 2012; Svob, Brown, Reddon, Uzer, and Lee 2013; Taveira, 2013) that has spread throughout higher education and has become a focus as a result of the implementation of the European Higher Education Area with its commitment to the employability of graduates, through the numerous conferences held in the last decade (Slovenia, 2004; Leuven, 2009; London, 2012, among others). This transition is linked to a concept as broad and ever-present as employability through the numerous factors that channel, influence, and impact on its development (Graph 1).

GRAPH 1. Relationship between the transition to working life, its factors, and the process of entering the workforce in the EHEA.



Source: Own elaboration.

Although studies that focus on determining what these factors are and

their level of impact are many and varied (Brown, Hesketh and Williams, 2002;

Figuera, 1996; Stokes, 2015; Lent and Brown, 2013; Longhi and Taylor, 2011; Moreau and Leathwood, 2006; Savickas, 2005), most of them identify the existence of internal factors related directly with the person (sex, age, level of maturity, personal and social identity, etc.), as well as other external factors from work, social, and economic settings that act as external constraints, and a third group of factors, resulting from the interaction between the person and his or her setting, such as the training received, social and family support, or strategies for planning and seeking work.

As a result of the constant exchange at play between all of these factors, university students become active agents in their employability and not just mere passive receptors of successive socioeconomic changes (Figuera, 1996). Consequently, it is as important to know and identify these factors as it is for higher education to consider and work on the employability of the university student, understood as a *slow-growing crop* (Yorke and Harvey, 2005), the development of which entails a set of essential competencies for acquiring a job, such as career guidance, information, and the necessary attitudes to perform and keep a job (Knight and Yorke, 2002; Van der Heijde, 2014).

Despite the breadth and complexity of this concept, employability in the university setting is initially established and begun in the process of social and workforce entry of the student, a process that starts before they complete their training at university. This moment not only coincides with major changes but also with environmental pressures, where the future

expectations and beliefs regarding the better or worse preparation for approaching the start of one's working life, are, according to Auberni's contributions (1995), mainly based on sufficient information, a positive attitude, and the acquisition of appropriate competencies.

Studies such as those completed by Rodríguez Espinar, Prades, and Basart (2007) or Rodríguez Espinar, Prades, Bernáldez, and Sánchez (2010), reveal the relationship between the information students receive about academic-professional aspects of the qualifications and a more positive perception of entering the workforce. For their part, Stevenson and Clegg (2011) and Tomlinson (2010) allude to the information and guidance university students receive as the fundamental element of commitment and understanding between academic learning and their employability. Salas (2003) also draws attention to the relationship between the decisions and the strategies that university students use concerning their workforce entry and the significance of students having quality information about the main characteristics of the job market in general and their professional field in particular.

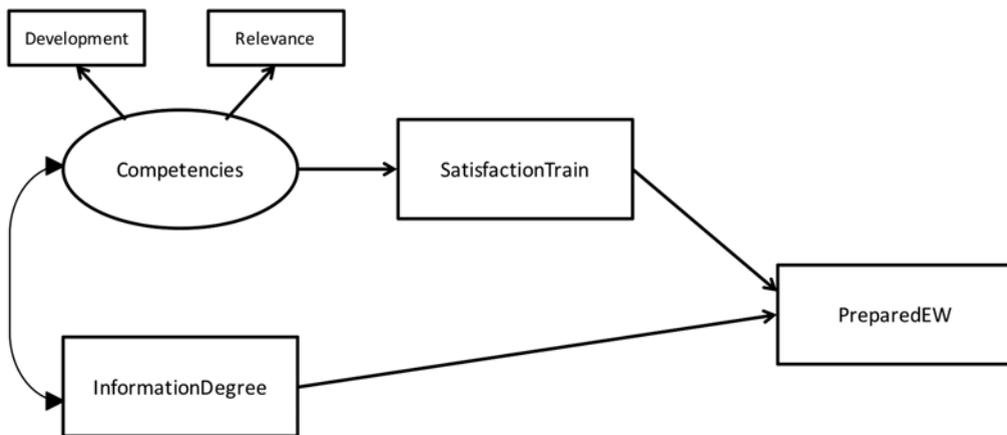
This information must, however, be connected to the development of competencies that enable students to have better adaptation and work performance in the *VUCA* society described above. Indeed, the level of development of these transversal competencies along with how important students regard them for their professional future make students' satisfaction with their university education vary and, depending on it, their per-

spective when facing entering the workforce also changes. This relationship is reflected in various studies that consider students' evaluation of the competencies they develop during university education (Conchado and Carot, 2013; Freire Seoane, 2007; Freire, Teijeiro, and Pais, 2013; Villa and Poblete, 2007) and their relevance to the graduates' workforce entry (Humburg and Van der Velden, 2015; Humburg, De Grip, and Van der Velden, 2012; Raybould and Sheedy, 2005; Suleman, 2016; Wilton, 2011). Throughout this research, it is apparent that disenchantment or dissatisfaction with university education goes hand in hand with requirements that do not relate to the job market, lack of applicability of what students learn in their degrees, and lesser development of key or transversal com-

petencies for them to be able to operate effectively in the world of work.

Based on these considerations and the theoretical foundations, this work proposes a hypothetical model (Graph 2) of university students' valuation of their current preparation for entering the workforce. This perception, according to this model, firstly depends on their satisfaction with the education they receive during their degree, which is affected directly by the development of a series of transversal competencies and how important they consider their training to be for their entry into the current job market, and secondly on the information and knowledge students have about the different options and work opportunities of their respective qualifications.

GRAPH 2. Hypothetical model of university education and its relationship with preparation for entering the workforce from the students' perspective.



Source: Own elaboration.

These components, that have a more or less direct impact on students' perceptions of their chances of success in the process

of entering the workforce, are specified in the following factors (or variables) of the model presented in Graph 2: *Competen-*

cies, alluding to a latent variable concerning training in transversal competencies which includes the *Development* throughout the university career of a set of 19 competence elements that relate to the more personal and participatory component of the student and the *Relevance* the student gives each of these elements for accessing the job market; *InformationDegree*, covering students' evaluations of the main lines, aspects, and career prospects of their courses; *SatisfactionTrain* concerning their level of satisfaction with the training received throughout the degree; and *PreparedEW* in which students evaluate their perception of their chances of success in the process of entering the workforce.

Based on this hypothetical model and its theoretical foundation, the following objectives are proposed:

- a) Determining the model's fit with the data from the research.
- b) Analysing the relationships found between the variables.
- c) Comparing the effect of career guidance about these variables to establish a possible causal relationship.

2. Method

2.1. Sample

A total of 931 students from different degree courses spread across four major branches of knowledge from both the University of Murcia (70%), and the University of Granada (30%) participated in this work. Their mean age is around 23 (SD = 4.174), with women more prevalent (75.3% of the total sample), as shown in Table 1.

TABLE 1. Distribution of the sample by sex, university, and branch of knowledge.

		n	%
TOTAL		931	100.0
Sex	Male	230	24.7
	Female	701	75.3
University	Universidad de Murcia	652	70
	Universidad de Granada	279	30
Branch of knowledge	Social and legal sciences	701	75.3
	Health sciences	105	11.3
	Science	52	5.6
	Arts and humanities	73	7.8

Note: (n) number of final-year degree students; (%) percentage of the total sample.

Source: Own elaboration.

This is a representative sample obtained through random cluster sampling.

The study population (final-year degree students) is 6896 and estimating a con-

fidence level of 99% ($K=2$), with a ± 3.93 margin of error and $Z = 1.96$, from the most unfavourable condition ($p = q = 0.5$).

2.2. Instrument

To perform this work, the survey technique was used with the Questionnaire on Career Guidance and Entering the Workforce (COIL), which was designed using an *ad hoc* process for a broader research project of which this work is a part. The preparation of this instrument makes it possible to gather quantitative and qualitative information from the perspective of final-year degree students about their upcoming entry into the job market.

This instrument is structured into five large blocks of content comprising:

- i) Personal and academic information.
- ii) Academic-professional experience.
- iii) Training on the degree.
- iv) Expectations and beliefs regarding employment.
- v) The resources and services the students can use to improve their entry into the workforce. This article focuses on blocks three and five, including the variables shown in Table 2, to analyse the hypothetical model proposed in Graph 2.

TABLE 2. Variables from the COIL to be analysed, by number of items and analysis of internal consistency.

Variable	Items (n)	Internal consistency	
		Cronbach's Alpha (α close to 1)	Other indices (± 1)
V1. Evaluate the following transversal competencies according to how they have been developed throughout your degree and their relevance for entering the workplace	19	Development $\alpha = .897$ Relevance $\alpha = .896$ Overall scale $\alpha = .898$	
V2. How much information do you have about each of the following aspects relating to the career prospects of your course?	9	Overall scale $\alpha = .880$	
V3. How satisfied are you with the training you have received throughout your degree?	1		Skewness = $-.274$ Kurtosis = $.208$
V4. Do you feel prepared to tackle your upcoming entry into the job market?	1		Skewness = $-.154$ Kurtosis = $.080$

Note: (n) number of items that make up the variable.

Source: Own elaboration.

All of these variables were evaluated by the students on a 1 to 5 Likert scale, on which 1 = not at all and 5 = a lot. Furthermore, as Table 2 shows, these scales have been subjected to a construct validity process (Martínez Clares and González Lorente, 2018), that made it possible to analyse their internal consistency accord-

ing to the particular characteristics of the variables. For the first two variables displayed in Table 3, Cronbach's Alpha was used owing to the large number of items, while for the two following variables, the sampling distribution was analysed based on the skewness and kurtosis indices to obtain evidence of its validity.

TABLE 3. Items in variables 1 and 2 of the questionnaire for analysis.

V1. Evaluate the following transversal competencies depending on how they have been developed throughout your course and their relevance for entering the workforce	V2. How much information do you have about each of the following aspects relating to the career prospects of your course?
1. Self-awareness	1. Work organisations where I can carry out my profession
2. Analysing, summarising, and critiquing	2. Entry routes to the different posts
3. Organisation and planning	3. Roles performed in different jobs
4. Communication skills	4. Means and procedures for carrying out these roles
5. Responsibility and perseverance	5. Participatory and personal competencies
6. Decision making	6. Technical and methodological competencies
7. Guiding people	7. Chances of promotion in the different fields and organisations
8. Team work and cooperation	8. Employment prospects
9. Ability to learn and adapt	9. Knowledge of the life-style (working hours, working conditions, possibilities of combining with other interests, etc.)
10. Flexibility and guidance concerning change	
11. Motivation for achievement	
12. Commitment to the organisation	
13. Ability to work under pressure	
14. Conflict solving and negotiating techniques	
15. Striving for excellence	

V1. Evaluate the following transversal competencies depending on how they have been developed throughout your course and their relevance for entering the workforce	V2. How much information do you have about each of the following aspects relating to the career prospects of your course?
16. Innovation	
17. Entrepreneurship	
18. Leadership	
19. Capacity for resilience and handling frustration	

Source: Own elaboration.

2.3. Methodological design and procedure

To meet the different objectives of this work, a quantitative methodological focus was adopted, with a *non-experimental, exploratory*, and *cross-sectional* survey-type research design using an *ad hoc* questionnaire.

The procedure followed in this research comprised the following phases:

- 1) In-depth literature search and setting research objectives.
- 2) Designing the data-collection instrument, the COIL *ad hoc* questionnaire.
- 3) Qualitative validation of the content of the questionnaire through the technique of expert judgement.
- 4) Voluntary, anonymous, and confidential data collection throughout the 2015-2016 academic year, among final-year degree students from various courses.
- 5) Data analysis using the SPSS v23 statistical computer program and construct validity of the COIL ques-

tionnaire to define the internal consistency and reliability of this data collection instrument.

6) Preparing a structural regression model from the theoretical foundation and data analysed for the purpose of in-depth examination of university students' evaluation of their feelings and beliefs about their preparation for tackling their social and workplace entry during the final year of initial training at university.

7) Analysing and presenting the results of this model that comprise this piece of work.

2.4. Data analysis

The AMOS v21 program was used to perform the data analysis and estimate the relationships established between the different variables in the proposed model. A structural regression model was designed to perform a simultaneous analysis of latent and manifest variables in accordance with the contributions by Bazán, Sánchez, Corral, and



Castañeda (2006). Concerning the first category, this model presents one latent variable, *Competency*, comprising two indicators or manifest variables, such as the *Development* and *Relevance* of a set of elements of previously evaluated competencies. The relationship established between these variables is unidirectional and causal, as is the case with the remaining observable variables for the model, represented in a rectangle: *InformationDegree*, *SatisfactionTrain*, and *PreparedEW*.

With the exception of the first of these variables, *InformationDegree*, which is an independent (or exogenous) variable through a bidirectional relationship with the latent variable and its corresponding covariance, the remaining observable variables are affected by another variable and, consequently, function as dependent (endogenous) ones, with an associated prediction error. Furthermore, attendance or participation in career guidance programmes by the university student, whether compulsory or voluntary, is considered in the structural regression model as a grouping variable, according to the classification of variables provided by Ruiz, Pardo, and San Martín (2010). Accordingly, a categorical variable is used that represents two different sub-populations of students to be compared by whether they have participated in career guidance programmes during their university education.

To estimate all of the parameters, the maximum likelihood (ML) method was used, as it is regarded as the most appropriate for multivariate normal variables (Oliver, Tomás, Hontangas, Cheyne, and Cox, 1999; Zurita, Castro, Álvarez,

Rodríguez, and Pérez, 2016). Following this estimation and analysis of the significance of the parameters equivalent to the regression coefficients (Cupani, 2012), the goodness of fit of the model was tested, both for the total number of participants in the study and for the parameters obtained after applying the grouping variable, based on the following indices:

- a) Absolute fit indices, such as the chi-squared statistic, the non-significant p values for which indicate a good fit.
- b) Relative fit indices such as the CFI (comparative fit index), the IFI (incremental fit index), and NFI (normed fit index), the values close to unity of which correspond with an ideal fit (Hu and Bentler; 1999; Kline, 1998).
- c) The root mean square error of approximation (RMSEA), that is considered good if below 0.05 and acceptable if the value does not exceed 0.08 (Browne and Cudeck, 1993).

3. Results

The results obtained from the evaluation of the goodness of fit of the model with the empirical data from the research are summarised in Table 4. Despite the associated significant p -value in the chi-squared test ($p = .000$), partly owing to the high sensitivity of this test with the analysis of large samples, the other indices correspond with a good fit of the model. Consequently, the relative fit or comparison indices are very close to unity while the RMSEA, with a value of .069, is an adequate fit.

TABLE 4. Coefficients and indices of goodness of fit of the model.

Chi-squared	CFI	IFI	NFI	RMSEA
21,496 gl = 4 p = .000	.950	.952	.942	.069

Source: Own elaboration.

Having tested the goodness of fit of the model, the causal relationships between the different variables were studied through technical evaluation of the estimated parameters. These parameters present adequate magnitudes, with relationships that are statistically significant and without negative variances as

shown in Table 5. All of the levels of significance of the relationships established attain $p = .005$, with the exception of the causal relationship between preparation before entering the workforce and satisfaction with the training received, the significance of which is even greater at $p = .002$.

TABLE 5. Regression weight (R.W.) and standardised regression weights (S.R.W.) between variables.

Relationship between variables			R.W.				S.R.W.
			Est.	E.E.	C.R.	p	Est.
Satisfaction Training	<---	Competency	.702	.101	6.968	***	.423
Development	<---	Competency	1,000				.799
Relevance	<---	Competency	.288	.046	6.231	***	.324
Prepared EW	<---	Satisfaction Training	.115	.037	3.111	.002	.101
Prepared EW	<---	Information Degree	.262	.041	6.337	***	.205
Information Degree	<-->	Competency	.122	.013	9.403	***	.404

Note: R.W. =Regression Weights; S.R.W. =Standardised Regression Weights; Est. =Estimates; E.E. =Error Estimate; C.R. =Critical Ratio; p=significance level (***=.005).

Source: Own elaboration.

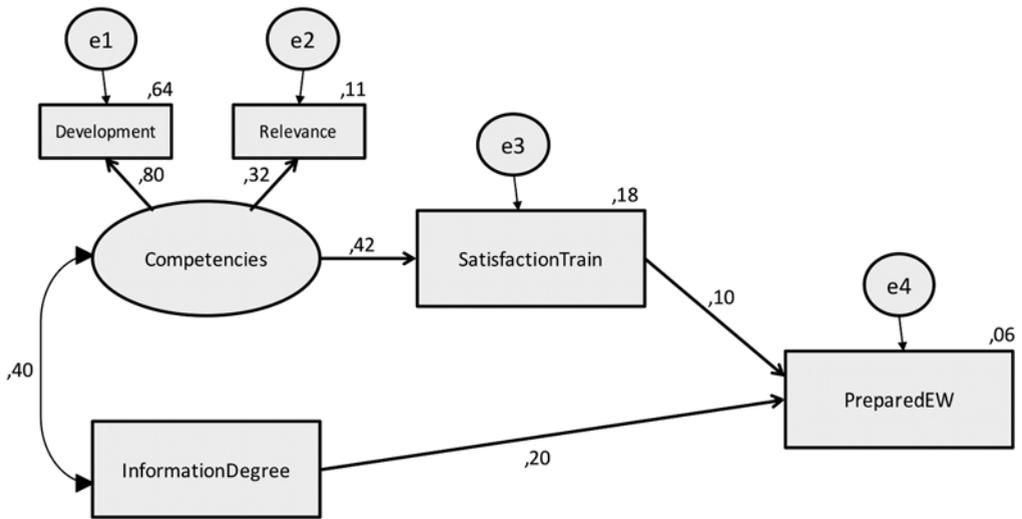
These results are also visually and schematically presented in Graph 3 with their standardised regression weights. In other words, they are expressed in standard deviation units. Among these, the

latent variable represented with an ellipsis correlates with its two indicators, *Development* and *Relevance*, with regression weights of 0.80 and 0.32, respectively. These high regression weights are also

present in the causal relationship established between the construct of *Competencies* and its effect on the students' satisfaction with their training (0.42). In contrast, the standardised regression weights fall in the relationships established directly with the *PreparedEW* variable con-

cerning students' expectations or beliefs about their preparation for entering the workforce. Therefore, neither students' satisfaction with their training (0.10) nor the information they acquire during their degree (0.20), display a strong causal relationship to consider with this variable.

GRAPH 3. Standardised structural equations model.



Source: Own elaboration.

It is important to note the bidirectional relationship between the latent variable and the observable independent variable (*InformationDegree*), with an adequate standardised regression weight value of 0.404 (Graph 3). Nonetheless, this parameter, unlike in the previous cases, represents the covariance existing between these two variables and, consequently, even though it is an optimal value, in this case, the S.R.W. only indicates the presence of a correlation without being able to determine the direction of the causality.

It is interesting to compare the parameters that are obtained once the grouping variable had been applied, consisting in analysing the data according to whether the student has participated in career guidance programmes while at university. These results initially indicate an increase in the covariance established between the construct of competencies and the observable and independent variable relating to the information received about aspects linked to the career prospects of the respective degrees taken (Table 6). While the strength or regres-

sion weight was around 0.40 in the previous case, when we take into account the grouping variable, this parameter increases for students who have participated in one of these programmes (0.545), while it is lower for those who have not

participated in one (0.382). Nonetheless, and despite this difference, the relationship between both variables remains statistically significant at .005 with just a 5% error probability.

TABLE 6. Regression weight (R.W.) and standardised regression weights (S.R.W.) between latent variable and the observable independent variable.

Relationship between variables			Grouping variable - Career guidance	R.W.				S.R.W.
				Est.	E.E.	C.R.	p	Est.
Information Degree	<-->	Competency	Yes	.163	.039	4.215	***	.545
			No	.116	.014	8.396	***	.382

Note: R.W. = Regression Weights; S.R.W. = Standardised Regression Weights; Est. = Estimates; E.E. = Error Estimate; C.R. = Critical Ratio; p = significance level (***=.005).

Source: Own elaboration.

For their part, the relationships established between the remaining observable variables also undergo changes when the categorical variable in question is applied. As Table 7 shows, the causal relationship between students' satisfaction with training at university and their beliefs about their preparation for tackling their entry into the workforce increases considerably, up to the point that the existence of a

causal relationship with a S.R.W. = 0.378 can be considered in the case of attending or participating in career guidance programmes. This contrasts with the regression weights obtained in the case of students who have not participated or if this grouping variable is not taken into account, where the relationship is very weak and the existence of other variables not observed in the model was considered.

TABLE 7. Regression weight (R.W.) and standardised regression weights (S.R.W.) between observable variables.

Relationship between variables			Grouping variable - career guidance	R.W.				S.R.W.
				Est.	E.E.	C.R.	p	Est.
Satisfaction Training	<---	Competency	Yes	.728	.242	3.010	.003	.415
			No	.692	.111	6.528	***	.421



Relationship between variables			Grouping variable - career guidance	R.W.				S.R.W.
				Est.	E.E.	C.R.	p	Est.
Development	<---	Competency	Yes	.100				.745
			No	.100				.808
Relevance	<---	Competency	Yes	.344	.123	2.804	***	.372
			No	.283	.050	5.631	***	.321
Prepared EW	<---	Satisfaction Training	Yes	.455	.102	4.458	***	.378
			No	.230	.045	5.100	***	.178
Prepared EW	<---	Information Degree	Yes	.058	.091	.631	.528	.054
			No	.124	.040	3.107	.002	.108

Note: R.W. = Regression Weights; S.R.W. = Standardised Regression Weights; Est. = Estimates; E.E. = Error Estimate; C.R. = Critical Ratio; p = significance level (***=.005).

Source: own elaboration.

This does not happen in the case of the relationship between information received during the degree and preparation for tackling entry into the workforce; the results in Table 7 again show how this relationship reduces yet further when considering whether the students have participated in career guidance programmes. In both cases, there is hardly any relationship, with very low regression weights and even a *p*-value of .528, meaning that this relationship is not statistically significant when the sub-population of students who attended a career guidance programme is considered.

For the other variables analysed in Table 7, the causal relationships remain statistically significant with regression weights very close to those obtained for

the study population as a whole. In these relationships, therefore, the grouping variable does not have a considerable effect that alters the strength or effect of one variable on another.

Finally, Table 8 again shows the principal indices that indicate the goodness of fit of the model but, in this case, after comparing the empirical data based on the grouping variable. Although they are similar data, with values for the CFI, IFI, and NFI indices that are very high and close to 1, demonstrating the good fit of the model, in this case the increase in the RMSEA to a value of 0.047 stands out, representing a good fit of the model, unlike the figure previously obtained for the analysis of the total sample, which with a RMSEA = 0.069, indicated a more moderate fit.

TABLE 8. Coefficients and indices of goodness of fit of the model with the grouping variable.

Chi-squared	CFI	IFI	NFI	RMSEA
24,731 gl = 8 p = .002	.952	.955	.935	.047

Source: Own elaboration.

4. Discussion and conclusions

This piece of work, among its main conclusions, provides a structural model for the relationship between different variables in the difficult and always complex process of social and workplace entry of university students before they complete their initial training. It provides a model based on the theoretical foundation and with overall and incremental goodness of fit indices that corroborate its design with a good fit to the empirical data. This model aligns with other previously presented studies (Bridgstock, 2009; Figuera, 1996; Forrier and Sels, 2003; Fugate, Kinicki and Ashforth, 2004; Hogan, Chamorro-Premuzic and Kaiser, 2013; Knight and Yorke, 2004; Moreau and Leathwood, 2006; Stokes, 2015; Thijssen Van der Heijden, and Rocco, 2008) that try to approach, from different perspectives, the complexity of the transition to the active life of young people with training from a complicated network spun from numerous personal and contextual factors.

In this framework which is currently so prominent, this structural regression model's novelty lies in the possibility of jointly analysing the relationships produced between latent and manifest

variables, while at the same time introducing the effect that other variables, such as participation in career guidance programmes, might have on these relationships. In all cases, the causal relationships are statistically significant, in accordance with the approach proposed in the hypothetical model presented.

Among the relationships studied, the one established for measuring a construct as important in higher education as competency-based training is particularly noteworthy. This variable is not directly observable and so in this work, as in others (Smith, Ferns and Russell, 2014), it is measured using different indicators that are regarded as basic for the development of this *slow-growing crop* that employability represents (Yorke and Harvey, 2005). The high standardised regression weights obtained in this sense are in line with other studies (Allen, Ramaekers and Van der Velden, 2003; Humburg and Van der Velden, 2015; Jackson, 2013; Knight and Yorke, 2004; Lantarón, 2014; Smith, Ferns, and Russell, 2014, 2016; Wesselink, De Jong, and Biemans, 2010). These underline the value of identifying a series of transversal competencies, their relevance for the students' entry into the workforce, and their implementa-



tion during university education to boost higher-education students' employability and increase their general satisfaction with their training as a key part of its perceived quality (González Zamora and Sanchís Pedregosa, 2014; Sirgy, Grez-eskowiak, and Rahtz, 2007).

Similarly, the correlation established between training based on competencies and the information students receive during their studies on the different career prospects and employment prospects relating to their qualification is important. The strength of this relationship attained in the results of the standardised model, shows that information is a fundamental aspect in the development of any teaching-learning process, especially when the aim is to train students to be independent and critical thinkers when selecting and managing useful information for seeking work. This is noted in the works by Robinson, Meyer, Prince, McLean and Low (2000) and, more recently, by Koys (2017) who observes a significant increase in students' professional conscience and their competencies based on better access to relevant information about the employment prospects and opportunities their degree offers in the current and future job market.

In contrast, and despite the contributions from other researchers (Salas, 2003; Stevenson and Clegg, 2011; Tomlinson, 2010), the results obtained indicate a weaker causal relationship in the effect this variable produces in relation to the quantity of useful information for entry into society and the workplace and the students' personal impression of being better prepared for this process. This also

happens in the relationship between the satisfaction variable and training; this does not display high regression weights relating to students' belief that they are more or less prepared before their entry into the workforce.

In essence, despite these being statistically significant relationships, it appears that in this more personal perception, there are other factors or variables that are not contemplated in the presented model and that might more directly and to a greater extent affect their development, such as the students' personal initiative (Gamboa, Lerin, Ripoll and Peiró, 2007), their socio-demographic characteristics (Rothwell and Arnold, 2007), their field of study, or previous work experience.

This is the case with the grouping variable introduced in this study, the results for which show an increase in these causal relationships relating to the belief among students who participated in an advice and career guidance programme voluntarily and/or on a mandatory basis that they will experience a good entry into the workforce at the end of their initial training at university. These results agree with the works by Popovic and Tomas (2009) or Dobrea and Staiculescu (2016) that observe a more optimistic vision of the transition to working life when the students explore and identify their own personal resources, emphasise their talents and start to put into action their plans for their career and life that are continuously being reviewed and updated. Similarly, Winters (2012) underscores how career guidance programmes have a positive effect on graduates' competencies and career options.

Career guidance affects the construction of these projects, becoming the distinguishing feature of higher education and the main axis of the basic training-career guidance-employment triangle. Therefore, it would be advisable to change the focus of the organisation of career guidance and its role within universities, to improve the processes of advice and career guidance as key practices to encourage the motivation and construction of the student's academic-professional career, because, as has been shown in the positive influence of participation in career guidance programmes within the hypothetical model, there is no point in isolating university education from personal and social development aspects, on the path to encourage the employability of the students in an adverse and unpredictable world of work (McArthur, 2011).

Universities should manage students' entry into the workforce and employability with a set of actions aimed at helping students develop specific and transversal competencies, as well as better practices for developing their relationship with businesses or workplace settings and opportunities to access employment and pre-professional placements, and for building a professional profile.

One of this study's limitations is the one-sided data collection by the students who are the central figures in their process of entering the workforce. However, the interesting results obtained in this way are an incentive for continuing with this line of research and providing new perspectives and focusses that go into greater depth in the identification of the major personal, training, social, and professional factors, as

well as in the relationship established between them. Therefore, it would be possible to continue along the lines that the EHEA proposes, producing a better analysis and greater knowledge of the employability of future graduates and their transition to working life as a process that transcends the limits of the learning economy and that, therefore, is pertinent to the university experience as a whole, in its different levels and contexts (Alcoforado, 2013).

At present, the difficulties of young people's transition to working life are not so much the greater or lesser benefits they achieve, but the permanent configuration of a changing and ambiguous social context in which they must make this transition.

Higher education should adapt itself to meet the new demands of the ever more versatile and fluid job market; for this reason, it must provide a better knowledge of real life to transform and improve it. With this aim, all efforts should focus on offering university students quality education and skills training to give them the necessary competencies to be able to take decisions about the career options that best fit their education. Career guidance must be a factor for change that boosts this quality and it must become a process of equality and equity in a sustainable society.

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