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### Validación de la versión en español de la escala de los factores que influyen en la elección de los estudios de educación (FIT-choice)

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#### Abstract

Improving the attractiveness of the teaching profession is one of the main objectives in the educational policies of the EU. It is necessary to have a deeper knowledge of the motivations for going into teaching. The aim of this study is the validation of a scale measuring the factors influencing the choice of Education studies (Factors Influencing Teaching choice, FIT-Choice scale), applied to a sample of 857 first-year preservice teachers surveyed at 11 faculties from the Community of Madrid during the academic year 2012-13. The scale's framework offers an organization of the most important factors found in both national and international studies on motivation to become a teacher. The FIT-Choice scale consists of 18 first-order factors: 12 motivational factors -7 of which are grouped into two higher-order factors (social utility and personal utility values)- and 6 perceptual factors -4 of which are grouped into two higher-order factors (task demand and task return)-. Analyses to check the internal consistency showed good results ( $\alpha=0.88$  for motivational factors and  $\alpha=0.69$  for perceptual factors) and confirmatory factor analyses were conducted. Results yielded acceptable global fit indices for first-order motivational factors (RMSEA=0.048, SRMR=0.054, CFI=0.966 and TLI=0.959) and for higher-order factors (RMSEA=0.056,

SRMR=0.064, CFI=0.968 and TLI=0.963). Also for perceptual first-order factors (RMSEA=0.051, SRMR=0.051, CFI=0.960 and TLI=0.951) and higher order factors (RMSEA=0.067, SRMR=0.08, CFI=0.961 and TLI=0.951). The validation of this scale grants the possibility to establish international comparisons due to its application in several countries. Moreover, it allows us to learn from the measures being applied in these countries in order to improve the attractiveness of the teaching profession.

*Key words:* Career choice, teacher motivation, preservice teachers, professional recognition, test validity, FIT- choice scale, Madrid, Spain.

### Resumen

La necesidad de mejorar el atractivo de la profesión docente es un objetivo prioritario en las políticas educativas de la UE. Para ello, es importante tener un conocimiento más profundo de las motivaciones de los que deciden cursar estudios de Educación. El objetivo de este estudio es la validación de una escala de medición de los factores que influyen en la elección de los estudios de Educación (*Factors Influencing Teaching choice, FIT-Choice scale*), aplicada a una muestra de 857 estudiantes de primer grado de Educación Infantil y Primaria de 11 facultades de la Comunidad de Madrid en el curso 2012-13. Este instrumento recoge de forma estructurada los diversos motivos que aparecen en las investigaciones -nacionales e internacionales- a la hora de elegir la profesión docente. La escala está formada por 18 factores de primer orden: 12 motivacionales -7 de ellos se agrupan en dos factores de segundo orden (valor utilidad social y valor utilidad personal)- y 6 perceptuales -4 de ellos se agrupan en dos factores de segundo orden (exigencia profesión y retorno profesión)-. Se procedió al análisis de la consistencia interna obteniendo resultados adecuados ( $\alpha=0.88$  para los factores motivacionales y  $\alpha=0.69$  para los perceptuales) y a la validación de la escala con un Análisis Factorial Confirmatorio. Los resultados muestran un buen nivel de ajuste para los factores motivacionales de primer orden (RMSEA=0.048; SRMR=0.054; CFI=0.966 y TLI=0.959) así como para los factores de segundo orden (RMSEA=0.056; SRMR=0.064; CFI=0.968 y TLI=0.963). Igualmente para los factores perceptuales de primer orden (RMSEA=0.051; SRMR=0.051; CFI=0.960 y TLI=0.951) y de segundo orden (RMSEA=0.067; SRMR=0.08; CFI=0.961 y TLI=0.951). La validación de esta escala ofrece la posibilidad de establecer comparaciones a nivel internacional y aprender de los efectos de las medidas tomadas en otros entornos para hacer atractiva la profesión docente.

*Palabras clave:* Elección de carrera, motivación del profesorado, futuros profesores, reconocimiento profesional, validación escala, escala FIT-Choice, Madrid, España.

## Introduction

The need to improve the appeal of Education degrees and the retention of good students is one of the priority objectives of EU education policy (Carlo et al., 2013; OECD, 2005; Eurydice, 2013).

The declining attractiveness of a teaching career in our country, as well as in the other OECD countries (Eurydice, 2005; Pedró et al., 2008; Pérez Juste, 2008), the rise in the average age of teachers (Eurydice, 2012; OECD, 2011), and the difficulty to retain them in the profession (Eurydice, 2012), has spurred an interest in research into the motivations of future teachers.

The countries with the highest scores in the PISA 2009 and 2012 reports were the ones where the teaching profession is considered prestigious and those that attract candidates with the best academic performance (Auguste, Kihn & Miller, 2010). In Spain, the most suitable procedures for selecting future teachers is a topic that is mostly unexplored, although there is plenty of scientific literature on initial teacher training (Egido, 2010). In order to improve the selection and training of future teachers, it is necessary to begin with a better understanding of their motivations (González Sanmamed & Fuentes Abeledo, 2011; Malmberg, 2006; Manuel & Hugues, 2006; Pedró et al., 2008; Sánchez Lissen, 2009; Siera & Siera, 2011; Sinclair, 2008; Sukran, 2011; Watt & Richardson, 2008).

A review of national studies on the reasons Teacher Training is chosen (López-Jurado & Gratacós, 2013), found that these are rather vague, as there is no consistency due to the lack of an agreed theoretical and analytical framework. The motivations identified in these studies are basically extrinsic (influence of family and friends, working conditions, possibility to pursue other types of studies, etc.) and intrinsic (enjoy children, wish to help others, to be able to influence others, to teach what one likes, social prestige, relationships with others, etc.). The altruistic reasons clearly identified in most international research, are not specified (Brookhart & Freeman, 1992; Hobson et al., 2006; Keow, 2006; Thomson, Turner & Nietfeld, 2012; Watt & Richardson, 2007). National studies show no systematisation of the various aspects involved in the decision to become a teacher.

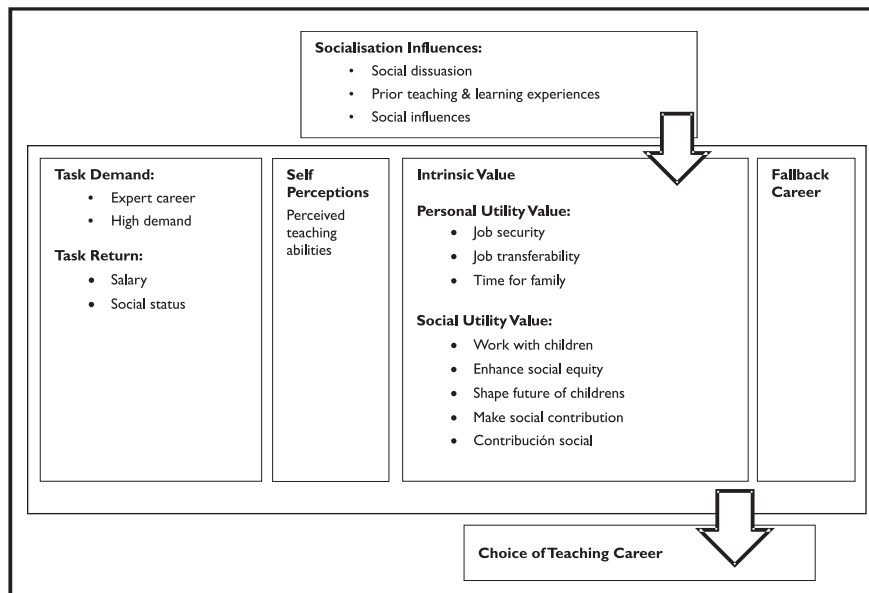
On the international level, agreed methods have been established to enable comparisons between different countries in order to learn about

the effects of measures taken to make the teaching profession more attractive (Klassen, Al-Dhafri, Hannok & Betts, 2011; Watt et al., 2012). This is the case of the model to measure what influences the decision to become a teacher: *Factors Influencing Teaching-Choice* -hereinafter, FIT-Choice-, developed by Watt and Richardson (2007) which has been implemented in Australia (Watt & Richardson, 2007), Holland (Fokkens-Bruinsma & Canrinus, 2012), Australia, Germany, Norway the United States (Watt et al., 2012), Turkey (Eren & Tezel, 2010; Topkaya & Uztosun, 2012), Canada and Oman (Klassen et al., 2011), Switzerland (Berger & D'Ascoli, 2012), Germany (Fokkens-Bruinsma & Canrinus, 2012; König & Rothland, 2012), Croatia (Jugoviæ, Marušiæ, Ivanec & Vidoviæ, 2012) and China (Lin, Shi, Wang, Zhang & Hui, 2012). These are very recent applications of the model, but they do cover very diverse countries, which make international comparisons possible. Furthermore, "it offers an organisation of the most important factors present in the studies on the motivation to become a teacher" (Berger & D'Ascoli, 2012, p. 3).

The objective of this research was to translate and adapt into Spanish the FIT-Choice scale to measure the factors affecting the decision to become a teacher and discover its psychometric properties. This will make it possible to systematise the various aspects that influence motivations as well as the perception that Spanish students have of the teaching profession when choosing this career, and also conduct comparative studies.

The FIT-Choice model is based on the expectancy-value theory developed by Eccles et al. (1983) which strives to explain the determinants of motivation to choose a career based on the expectations of success and task evaluation (Figure 1). It breaks down the determinants of motivation into four elements: *self-concept*, *task value*, *second degree of choice*, and *expectations and beliefs about the profession*. *Self-concept* refers to the perceived ability to teach. The *task value* is broken down into intrinsic value, personal utility value (job security, job transferability, time for family) and social utility value (shape future of children, enhance social equity, make a social contribution and work with children/youths). The *expectations and beliefs about the profession* are broken down into the task demand (expert career and high demand) and task return (social status and salary). Then, *second degree of choice* takes into account whether the career was the first choice. Finally, socialisation aspects prior to the decision are included (influence of family, friends and teachers) and perceptions from previous experiences.

FIGURE 1. FIT- Choice empirically validated theoretical model



Source: Watt et al. (2012, p. 187).

## Method

### Sample

The questionnaire was given to 857 first year undergraduate students of Preschool and Primary Education from 11 of the 15 faculties offering these studies in the Madrid Autonomous Community, between April and June of the 2012-13 academic year. The final sample was 851 -after cancelling 6 questionnaires that were duplicated- and was made up of 682 women (80.1%) and 169 men (19.9%), with an average age of 21.6 (SD= 4.29).

The distribution by faculty and studies pursued is shown in Table 1:

**TABLE 1.** First year undergraduated students in Education degrees in Madrid Autonomous Community. Academic year 2012-13

	POPULATION YEAR 2012-13*			SAMPLE			% SAMPLE / POPULATION			Questionnaire format	
	PRE-SCHOOL	PRIMARY	TOTAL	PRE-SCHOOL	PRIMARY	TOTAL	PRE-SCHOOL	PRIMARY	TOTAL		
C.U.V.	33	69	102	3,47%	19	46	65	58%	67%	63,73%	paper
D.BOSCO	85	121	206	7,00%	55	99	154	65%	82%	74,76%	paper
ESCUNI	105	141	246	8,36%	40	115	155	38%	82%	63,01%	paper
LA SALLE	48	26	74	2,52%	20	21	41	42%	81%	55,41%	paper
C. CISNEROS	91	126	217	7,38%	5	5	5	5,49%	17%	2,30%	online
UCM	298	365	663	22,54%	109	62	171	37%	13%	25,79%	paper
UAM	240	331	571	19,42%	28	44	72	12%	13%	12,61%	paper
URJC	228	336	564	19,18%	85	64	149	37,28%	19,05%	26,42%	online
UCJC	35	117	152	5,17%	3	4	7	8,57%	3,42%	4,61%	online
CEU S. PABLO	17	9	26	0,88%	2	2	2	22,22%	22,22%	7,69%	online
F. VITORIA	17	18	35	1,19%	15	14	29	88,24%	77,78%	82,86%	paper
COMILLAS	12	20	32	1,09%			0			0,00%	
ALFONSO X	33	0	33	1,12%			0			0,00%	
A. DE NEBRIJA	4	12	16	0,54%			0			0,00%	
U. EUROPEA DE M.	0	4	4	0,14%			0			0,00%	
<b>TOTAL</b>	<b>1246</b>	<b>1695</b>	<b>2941</b>	<b>100,00%</b>	<b>379</b>	<b>471</b>	<b>850*</b>	<b>30,42%</b>	<b>27,79%</b>	<b>28,90%</b>	

Source: Consejería de Educación. Comunidad de Madrid.

\*Data provided by Comunidad de Madrid

Note: There is one questionnaire which does not report the faculty to which it belongs. Therefore, it has not been included in this table.

UPV: Universidad Francisco de Vitoria; CEU: CEU-S. Pablo; CUV: Centro Universitario Villanueva; UCM: Universidad Complutense de Madrid; UAM: Universidad Autónoma de Madrid; UCJC: Universidad Camilo José Cela; URJC: Universidad Rey Juan Carlos

## Initial Adaptation of the Tool

To adapt the FIT-Choice scale tool to Spanish, we used the psychometric validation of this scale conducted by the authors (Richardson & Watt, 2006; Watt & Richardson, 2007). To translate and adapt the original scale, we followed Hambleton's indications (1996); a team of bilingual researchers translated it into English and then a back translation was done into Spanish. The process was divided into three stages. First, the authors of this paper -with the help of a team of bilingual researchers- translated the items of the original scale into Spanish. Next, 11 academic experts on the topic being researched evaluated the translation. Specifically, they were asked to measure on a Likert scale, from 1 (not at all suitable) to 4 (very suitable), the suitability of the proposed translation for the item and to make recommendations or point out areas for improvement. With their feedback, we reached a consensus on the most appropriate translation, not only from a linguistic perspective, but also from a cultural one. For the items with the greatest diversity of opinions, we consulted with the authors of the scale to make sure that what they intended to measure with each item of the original scale was being adequately reflected. During the second stage, we had professional translators do a back translation. In the third stage, we carried out a pilot test with a group of 30 Bachelor of Education students to verify their relevance and make sure that the items were correctly understood. Their comments helped refine certain items. The original scale and its translation into Spanish are included in Table 6 of Appendix I.

The FIT-Choice questionnaire has four sections:

- Part A: Sociodemographic data (19 items and an open question)■
- Part B: Influencing Factors (40 items)
- Part C: Beliefs about Education (15 items)
- Part D: Your Decision to Become a Teacher (6 items)

Parts B, C and D are questions or statements scored on a seven-point Likert-type scale from 1 (not important at all) to 7 (very important). A total of 18 factors are measured with the items in Part B (12 motivational factors) and those in Parts C and D (6 perceptual factors on the teaching profession). In addition, 7 of the motivational factors were grouped into second-order factors, as well as 4 of the perceptual factors (see Tables 2 and 3).



## Questionnaire Administration and Data Collection

First, we obtained approval from the corresponding Ethics Committee. We contacted the deans, degree coordinators and teachers to explain the purpose of the study and ask for their permission to administer the questionnaires. The participating students were informed of the objective of the research and were asked for their consent. Out of the total 857 questionnaires, 693 were voluntarily completed by students in a classroom, taking up 20 minutes of a class in the seven faculties where we were allowed to do so. In the other four faculties the students were provided with a link to the online survey by a first-year teacher when classes were over. This way, we received a total of 164 responses online.

The data were cleaned and 6 duplicate questionnaires online were eliminated because they had the same email address, bringing the actual sample to 851 students. We also eliminated 13 questionnaires which only had answers in Part A. Extreme values were identified and cleaned, keeping them if they made sense compared to the rest of the answers and deleting them otherwise.

## Statistical Analysis

A confirmatory factor analysis (CFA) was conducted with the software LISREL 9.1, separating motivation items (items B) from perceptual ones (items C and D).

The confirmatory factor analysis showed that the theoretical model proposed by Watt and Richardson (2007) of 18 factors adequately fits the data of the sample obtained. The analysis was based on the maximum-likelihood estimation, after confirming multivariate normality of the sample (Mardia coefficient for motivational variables = 369.44 less than  $p \cdot (p + 2)$ , with  $p$  being the number of variables observed,  $40 \cdot (40 + 2) = 1680$ , and for perceptual variables = 115.13 less than  $p \cdot (p + 2)$ ,  $p$  being the number of variables observed,  $21 \cdot (21 + 2) = 483$ ) (Bollen, 1989), and directly with the data obtained. For the statistical calculation, we excluded cases using listwise deletion.

Model fit was assessed with a combination of absolute and relative fit indices. We followed Brown's criterion (2006), favouring use of RMSEA, SRMR, CFI and TLI due to their overall satisfactory performance when

assessing goodness of fit. RMSEA indicates that the model based on the sample used represents the population when its value is less than or equal to 0.05, with values under 0.08 also considered acceptable (Nuñez Alonso, Martín-Albo Lucas & Navarro Izquierdo, 2005). SRMR minimises the problem derived from the sample size and values of 0.06 or lower indicate an excellent fit. TLI is a relative index comparing the lack of fit of the hypothesised model with the lack of fit of the null model. There must be a value greater than or equal to 0.90 to obtain an adequate fit between the data and the model. CFI indicates reductions in poor fits and their value must be higher than or equal to 0.90 in order to consider the fit of a model minimally acceptable.

## Results

### Psychometric Properties of the Scale

Two separate confirmatory factor analyses were conducted for motivations and for perceptions. The results of the initial CFA on motivations showed an acceptable level of fit (RMSEA = 0.052; SRMR = 0.055; CFI = 0.952 and TLI = 0.959). With the residuals, we conducted an analysis of the high modification indices and used this to adjust the model. This consisted in including covariations in the error terms when it was justified because similar expressions had been used in different indicators or they shared certain words -items B4 and B18; B2 and B16; B53, B26 and B37; B2 and B4- (Brown, 2006). A new analysis was carried out and the results showed a better fit of the model (RMSEA = 0.048; SRMR = 0.054; CFI = 0.966 and TLI = 0.959). For perception factors, CFA results provided a good fit (RMSEA = 0.051; SRMR = 0.051; CFI = 0.960 and TLI = 0.951).

In the final solution, the 18 factors of the theoretical model included in the Spanish sample were: “perceived ability”, “intrinsic career value”, “fallback career”, “job security”, “time for family”, “job transferability”, “shape future of children”, “enhance social equity”, “make social contribution”, “work with children”, “prior teaching/learning experiences”, “social influences”, “high demand”, “expert career”, “social status”, “salary”, “social dissuasion” and “satisfaction with choice”.

Next, we conducted a confirmatory factor analysis of second-order factors for motivations as well as for perceptions with the following

results: RMSEA = 0.056; SRMR = 0.064; CFI = 0.968 and TLI = 0.963 for motivation second-order factors, and RMSEA = 0.067; SRMR = 0.08; CFI = 0.961 and TLI = 0.951 for perception second-order factors.

The nested CFA used to evaluate the fit of the four second-order factors: “personal utility value” and “social utility value” for motivations and “task demand” and “task return” showed a good fit, as we have seen.

Factor loadings found in each factor, both in the first-order analysis and in the nested one, were statistically significant ( $p < 0.01$ ) with standardised values higher than 0.5 (with item B8 being the only exception).

## Internal Consistency

The internal consistency of the factors was evaluated with Cronbach's  $\alpha$  using the SPSS 18 statistical package. The values of Cronbach's  $\alpha$  for the overall scales on motivations and perceptions were 0.88 and 0.69, respectively.

As seen in the results obtained in Tables 2 and 3, all factors had a value higher than 0.60 with the exception of the “fallback career” and “job transferability” factors with values 0.545 and 0.581 respectively, in the case of motivational factors, and the perception factors “high demand” and “salary” with values of 0.589 and 0.573. These factors were, however, maintained to be able to make comparisons with studies conducted in other countries using the FIT-Choice scale.

Furthermore, the factor “job transferability”, given the current economic crisis and the rising demand for Spanish teachers in other countries (Carrera Troyano & Gómez Asencio, 2007), should be considered separately and not as part of “job security”. This is why we also decided to keep item B8 in this subscale, for its elimination would not improve the goodness of fit. Moreover, both factors are part of the second-order factor “personal utility value”.

Table 2 shows Cronbach's  $\alpha$  values, item factor loadings, the means for each factor and second-order factor loadings for motivational factors, as well as means and standard deviations of the scale elements. Table 3 shows these values for the perceptual factors. We have also compiled the correlations between motivation (Table 4) and perception (Table 5) factors.

**TABLE 2.** Mean, standard deviation, factor loadings and Cronbach's  $\alpha$  values for motivational factors

First-order factors	M	SD	LX	Cronbach's $\alpha$	Second-order factors	GA
<b>F1. Work with children</b>	6.0			0.892		0.577
B13. I want a job that involves working with children/adolescents	6.07	1.209	0.841			
B26. I want to work in a child/adolescent-centered environment	6.06	1.236	0.875			
B37. I like working with children/ adolescents	6.18	1.145	0.814			
<b>F2. Enhance social equity</b>	5.3			0.784	<b>Social Utility Value</b>	0.815
B36. Teaching will allow me to raise ambitions of underprivileged youth	5.04	1.478	0.699			
B49. Teaching will allow me to benefit the socially disadvantaged	5.43	1.393	0.800			
B54. Teaching will allow me to work against social disadvantage	5.47	1.395	0.734			
<b>F3. Shape future of children/adolescents</b>	5.9			0.688		0.951
B9. Teaching will allow me to shape child/adolescent values	6.25	1.031	0.542			
B23. Teaching will allow me to influence the next generation	5.72	1.289	0.681			
B53. Teaching will allow me to have an impact on children/adolescents	5.95	1.167	0.701			
<b>F4. Make social contribution</b>	5.5			0.649		0.852
B6. Teaching allows me to provide a service to society	5.87	1.202	0.690			
B20. Teachers make worthwhile social contribution	6.23	1.072	0.627			
B31. Teaching enables me to "give back" to society	4.69	1.757	0.638			
<b>F5. Job security</b>	3.9			0.833		0.969
B14. Teaching will offer a steady career path	4.3	1.641	0.717			
B27. Teaching will provide a reliable income	3.86	1.639	0.857			
B38. Teaching will be a secure job	3.65	1.607	0.802			
<b>F6. Job transferability</b>	3.7			0.581	<b>Personal Utility Value</b>	0.880
B8. Teaching will be a useful job when travelling	4.39	1.896	0.383			
B22. A teaching qualification is recognized everywhere	3.78	1.652	0.600			
B45. A teaching job will allow me to choose where I wish to live	3.02	1.596	0.669			
<b>F7. Time for family</b>	3.7			0.890		0.759
B2. Part-time teaching could allow more family time	4.22	1.796	0.740			
B4. As a teacher I will have longer holidays	3.18	1.779	0.698			
B16. Teaching hours will fit with the responsibilities of having a family	4.52	1.706	0.782			
B18. As a teacher I will have a short working day	3.06	1.531	0.719			
B29. School holidays will fit in with family commitments	3.73	1.744	0.892			

TABLE 2. Continuation

First-order factors	M	SD	LX	Cronbach's $\alpha$	Second-order factors	GA
<b>F8. Intrinsic career value</b>	5.9			0.645		
B1. I am interested in teaching	6.25	1.022	0.688			
B7. I've always wanted to be a teacher	5.44	1.757	0.580			
B12. I like teaching	6.24	0.939	0.694			
<b>F9. Perceived ability</b>	5.8			0.824		
B5. I have the qualities of a good teacher	5.82	1.043	0.780			
B19. I have good teaching skills	5.8	1.015	0.807			
B43. Teaching is a career suited to my abilities	5.84	1.119	0.763			
<b>F10. Prior teaching/learning experiences</b>	5.4			0.844		
B17. I have had inspirational teachers	5.42	1.587	0.873			
B30. I have had good teachers as role-models	5.43	1.578	0.955			
B39. I have had positive learning experiences	5.41	1.352	0.636			
<b>F11. Social influences</b>	3.7			0.863		
B3. My friends think I should become a teacher	3.12	2.043	0.793			
B24. My family think I should become a teacher	4.05	2.106	0.861			
B40. People I've worked with think I should become a teacher	4.07	2.049	0.837			
<b>F12. Fallback career</b>	1.6			0.545		
B11. I was unsure of what career I wanted	2.01	1.602	0.527			
B35. I was not accepted into my first-choice career	1.65	1.599	0.571			
B48. I chose teaching as a last-resort career	1.25	0.88	0.502			

M: Mean; SD: Standard Deviation; LX: Standardized Factor Loading; GA: Higher Order Factor Loading.

**TABLE 3.** Mean, standard deviation, factor loadings and Cronbach's  $\alpha$  values for perceptual factors

First-order factors	M	SD	LX	$\alpha$ de Cronbach	Second-order factors	GA
<b>F1. Expert career</b>	5.4			0.791		0.797
C10. Do you think teaching requires high levels of expert knowledge?	5.7	1.213	0.670		<b>Task Demand</b>	
C14. Do you think teachers need high levels of technical knowledge?	5.3	1.275	0.817			
C15. Do you think teachers need highly specialised knowledge?	5.39	1.281	0.768			
<b>F2. High demand</b>	5.9			0.589		0.944
C2. Do you think teachers have a heavy workload?	5.7	1.226	0.497		<b>Task Return</b>	
C7. Do you think teaching is emotionally demanding?	6.23	0.957	0.557			
C11. Do you think teaching is hard work?	5.96	1.122	0.663			
<b>F3. Salary</b>	3.1			0.573		0.830
C1. Do you think teaching is well paid?	3.4	1.78	0.579		<b>Task Return</b>	
C3. Do you think teachers earn a good salary?	2.85	1.36	0.809			
<b>F4. Social status</b>	2.9			0.853		
C4. Do you believe teachers are perceived as professionals?	3.44	1.495	0.664		<b>Task Return</b>	
C8. Do you believe teaching is perceived as a high-status occupation?	2.75	1.527	0.700			
C9. Do you think teachers feel valued by society?	2.63	1.421	0.876			
C12. Do you believe teaching is a well-respected career?	2.88	1.502	0.825			
C13. Do you think teachers feel their occupation has high social status?	3.18	1.604	0.609			
<b>F5. Social dissuasion</b>	3.4			0.758		
D2. Were you encouraged to pursue careers other than teaching?	3.4	2.093	0.707		<b>Task Return</b>	
D4. Did others tell you teaching was not a good career choice?	3.69	2.07	0.544			
D6. Did others influence you to consider careers other than teaching?	3.31	1.981	0.949			
<b>F6. Satisfaction with choice</b>	6.2			0.837		
D1. How carefully have you thought about becoming a teacher?	6.14	1.088	0.586		<b>Task Return</b>	
D3. How satisfied are you with your choice of becoming a teacher?	6.34	1.054	0.935			
D5. How happy are you with your decision to become a teacher?	6.38	0.994	0.931			

M: Mean; SD: Standard Deviation; LX: Standardized Factor Loading; GA: Higher Order Factor Loading.

TABLE 4. Correlations of motivation factors

	1	2	3	4	5	6	7	8	9	10	11	12
1. Job security	-											
2. Time for family	.740	-										
3. Job transferability	.851	.664	-									
4. Shape future of children	.257	.156	.312	-								
5. Enhance social equity	.157	.051	.259	.743	-							
6. Make social contribution	.248	.199	.352	.787	.756	-						
7. Work with children	.145	.019	.125	.625	.454	.417	-					
8. Perceived ability	.136	.114	.147	.514	.346	.435	.421	-				
9. Intrinsic career value	.046	-.047	.123	.620	.442	.555	.625	.738	-			
10. Fallback career	.191	.261	.219	-.164	-.182	.175	-.308	-.337	-.577	-		
11. Prior teaching/learning experiences	.206	.143	.316	.239	.263	.433	.161	.158	.279	-.001	-	
12. Social influences	.396	.358	.553	.321	.178	.314	.209	.349	.274	.097	.226	-

TABLE 5. Correlations of perception factors

	1	2	3	4	5	6
1. Expert career	-					
2. High demand	.668	-				
3. Social status	.064	-.121	-			
4. Salary	.043	-.128	.627	-		
5. Social dissuasion	-.084	-.051	.006	-.048	-	
6. Satisfaction with choice	.204	.392	-.056	-.065	-.173	-

## Discussion

The objective of this study was to translate and adapt the FIT-Choice scale into Spanish and analyse its psychometric properties. The results showed that the Spanish FIT-Choice scale has adequate factor reliability and validity levels compared to the original version and to the adaptations in other languages that have been validated with samples in other countries (Watt et al., 2012). Internal consistency of the subscales was adequate and very similar to that found in the original version except for the “job transferability” and “fallback career” factors which, in the Spanish sample, were especially low.

Regarding the validity of FIT-Choice, the results showed a structure of 18 factors correlated with adequate fit indices very similar to those obtained in the original version and in previous studies using samples from different countries (Watt & Richardson, 2012). The factor correlations indicate the importance of considering different factors that have an effect on the decision to pursue Education studies, which can be clearly identified and organised to establish this triple classification of extrinsic motivation (second-order factor “personal utility value”), intrinsic motivation (first-order factor “intrinsic value of the degree”) and altruistic motivation (second-order factor “social utility value”) as was clearly identified in the foreign literature (Brookhart & Freeman, 1992; Hobson et al., 2006; Keow, 2006; Thomson et al., 2012; Watt & Richardson, 2007), but with limited presence in national literature (López-Jurado & Gratacós, 2013).



The FIT-Choice model also covers aspects previously identified in the literature that specifically focuses on the topic of choosing to pursue Education studies based on social influences, prior experiences and as a second degree of choice.

## Conclusions

This study presents the validation of a tool used to understand the factors involved in choosing an Education degree, and to clearly differentiate between three types of motivations, although numerous non-quantifiable factors and variables may have an impact.

Since this tool provides a systematic and integrated approach for comparing samples and locations, having a Spanish version further enhances this possibility as it enables comparisons that could provide data with valuable implications for the selection and retention of teachers (Watt & Richardson, 2012).

A deeper understanding of the motivations influencing the choice to pursue Education studies can help education policies consider the factors that make them attractive, emphasising the most significant ones. For example, to make the teaching profession prestigious, it is valuable to understand the perceptions that future teachers have of this profession, in order to design communication campaigns that avoid stereotypes. Additionally, taking into account factors that have an impact on students who choose to study an Education degree could shed light on the career counselling required prior to university.

Another implication, in the area of university studies, could be to improve the curricula based on these motivations to prevent students from losing interest and reconsidering another degree (Watt et al., 2012). Moreover, it would facilitate tutoring follow-ups at university. Once they are practicing teachers, it would help establish induction plans that take into account their motivations and enhance their engagement and satisfaction with their jobs to avoid burnout.

For further research, it would be interesting to have access to a broad sample of national results and be able to make international comparisons. It would also be of interest to do a longitudinal study of these factors in students as they progress in their studies, and especially during internships in schools and when they join the labour market. This would show us the level of motivation of our future teachers and help establish adequate plans to address their wishes for professional development.

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## Appendix I

**TABLE 6.** The Spanish version of the FIT-Choice scale

Factor	Original version Item: "I chose to become a teacher because..."	Spanish version Item: "He decidido estudiar Educación porque..."
Perceived ability	B5 I have the qualities of a good teacher B19 I have good teaching skills B43 Teaching is a career suited to my abilities	B5. Tengo cualidades para ser buen maestro/a B19. Tengo buenas habilidades para enseñar B43. La enseñanza es una profesión que se adecúa a mis habilidades
Intrinsic career value	B1 I am interested in teaching B7 I've always wanted to be a teacher B12 I like teaching	B1. Me interesa la enseñanza B7. Siempre he querido ser maestro/a B12. Me gusta enseñar
Fallback career	B11 I was unsure of what career I wanted B35 I was not accepted into my first-choice career B48 I chose teaching as a last-resort career	B11. No tenía claro qué carrera quería estudiar B35. No fui aceptado en la carrera de primera opción B48. La carrera de Educación era la última opción que tenía
Job security	B14 Teaching will offer a steady career path B27 Teaching will provide a reliable income B38 Teaching will be a secure job	B14. La enseñanza me ofrecerá un trabajo estable B27. Ser maestro me permite tener un sueldo fijo B38. La enseñanza es un trabajo seguro
Time for family	B2 Part-time teaching could allow more family time  B4 As a teacher I will have longer holidays B16 Teaching hours will fit with the responsibilities of having a family B18 As a teacher I will have a short working day B29 School holidays will fit in with family commitments	B2. Por el horario escolar, trabajar como maestro me permitiría tener más tiempo para la familia B4. Siendo maestro tengo más vacaciones B16. Los horarios me permitirán compatibilizarlo con mis responsabilidades familiares B18. Siendo maestro tendré una jornada laboral corta B29. Las vacaciones escolares encajan con mis obligaciones familiares
Job transferability	B8 Teaching will be a useful job when travelling  B22 A teaching qualification is recognized everywhere B45 A teaching job will allow me to choose where I wish to live	B8. La enseñanza puede darme la oportunidad de trabajar en el extranjero B22. la titulación de maestro tiene un reconocimiento en todas partes B45. La enseñanza me permitirá elegir donde quiero vivir

Shape future of children/adolescents	B9 Teaching will allow me to shape child/adolescent values B23 Teaching will allow me to influence the next generation B53 Teaching will allow me to have an impact on children/adolescents	B9. La enseñanza me permitirá formar en valores a niños/adolescentes B23. La enseñanza me permitirá influir en la próxima generación B53 La enseñanza me permitirá influir en los niños/adolescentes
Enhance social equity	B36 Teaching will allow me to raise ambitions of underprivileged youth B49 Teaching will allow me to benefit the socially disadvantaged B54 Teaching will allow me to work against social disadvantage	B36. la enseñanza me permitirá elevar las ambiciones de la juventud desfavorecida B49. La enseñanza me permitirá ayudar a las personas socialmente desfavorecidas B54 La enseñanza me permitirá trabajar contra la desventaja social
Make social contribution	B6 Teaching allows me to provide a service to society B20 Teachers make worthwhile social contribution  B31 Teaching enables me to “give back” to society	B6. La enseñanza me permite dar un servicio a la sociedad  B20. Los maestros hacen una contribución valiosa a la sociedad B31. Ser maestro me permite devolver a la sociedad lo que he recibido
Work with children/adolescents	B13 I want a job that involves working with children/adolescents B26 I want to work in a child/adolescent-centered environment B37 I like working with children/adolescents	B13. Quiero un trabajo que suponga trabajar con niños/adolescentes B26. Quiero trabajar en un entorno con niños/adolescentes  B37. Me gusta trabajar con niños/adolescentes
Prior teaching and learning experiences	B17 I have had inspirational teachers B30 I have had good teachers as role-models B39 I have had positive learning experiences	B17. He tenido profesores a los que he admirado y me han influido positivamente B30. He tenido profesores que han sido buenos modelos B39. He tenido experiencias de aprendizaje positivas
Social influences	B3 My friends think I should become a teacher B24 My family think I should become a teacher B40 People I've worked with think I should become a teacher	B3. Mis amigos piensan que debería ser maestro B24. Mi familia piensa que debería ser maestro/a B40. La gente con la que he trabajado piensan que debería ser maestro/a
Expert career	C10 Do you think teaching requires high levels of expert knowledge? C14 Do you think teachers need high levels of technical knowledge? C15 Do you think teachers need highly specialised knowledge?	C10. ¿Crees que la enseñanza exige un alto nivel de conocimiento? C14. ¿Crees que los maestros necesitan altos niveles de conocimiento técnico? C15. ¿Crees que los maestros necesitan conocimiento altamente especializado?

High demand	<p>C2 Do you think teachers have a heavy workload?</p> <p>C7 Do you think teaching is emotionally demanding?</p> <p>C11 Do you think teaching is hard work?</p>	<p>C2. ¿Crees que los maestros tienen una fuerte carga de trabajo?</p> <p>C7. ¿Crees que la enseñanza requiere un gran trabajo emocional?</p> <p>C11. ¿Crees que la enseñanza es un trabajo exigente?</p>
Social status	<p>C4 Do you believe teachers are perceived as professionals?</p> <p>C5 Do you think teachers have a high morale?</p> <p>C8 Do you believe teaching is perceived as a high-status occupation?</p> <p>C9 Do you think teachers feel valued by society?</p> <p>C12 Do you believe teaching is a well-respected career?</p> <p>C13 Do you think teachers feel their occupation has high social status?</p>	<p>C4. ¿Crees que a los maestros se les percibe como profesionales?</p> <p>C5. ¿Crees que los maestros tienen un alto nivel de entusiasmo?</p> <p>C8. ¿Crees que la enseñanza se considera una profesión de alto status?</p> <p>C9. ¿Crees que los maestros se sienten valorados por la sociedad?</p> <p>C12. ¿Crees que la profesión de maestro está bien considerada?</p> <p>C13. ¿Crees que los maestros creen que su trabajo tiene un alto status social?</p>
Salary	<p>C1 Do you think teaching is well paid?</p> <p>C3 Do you think teachers earn a good salary?</p>	<p>C1. ¿Crees que los maestros están bien pagados?</p> <p>C3. ¿Crees que el ejercicio de la enseñanza está bien remunerado?</p>
Social dissuasion	<p>D2 Were you encouraged to pursue careers other than teaching?</p> <p>D4 Did others tell you teaching was not a good career choice?</p> <p>D6 Did others influence you to consider careers other than teaching?</p>	<p>D2. ¿Te animaron a elegir otras carreras antes que la de Educación?</p> <p>D4. ¿Te dijeron otras personas que ser maestro no era una buena elección de carrera?</p> <p>D6. ¿Otras personas te influyeron para que consideraras otras carreras alternativas a Educación?</p>
Satisfaction with choice	<p>D1 How carefully have you thought about becoming a teacher?</p> <p>D3 How satisfied are you with your choice of becoming a teacher?</p> <p>D5 How happy are you with your decision to become a teacher?</p>	<p>D1. ¿En qué medida has considerado seriamente tu decisión de ser maestro?</p> <p>D3. ¿En qué medida estás satisfecho con tu decisión de ser maestro?</p> <p>D5. ¿En qué medida estás contento con tu decisión de ser maestro?</p>

<sup>(1)</sup> This item was dropped out to improve reliability and validity levels.

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