



RELIEVE. Revista Electrónica de Investigación y
Evaluación Educativa

ISSN: 1134-4032

emolmedo@ugr.es

Universidad de Granada
España

Caballero Rodríguez, Katia; Mula-Falcón, Javier; García Jiménez, Eduardo
Questionnaire validation on the perception and satisfaction
of academics with professional evaluation systems

RELIEVE. Revista Electrónica de Investigación y Evaluación
Educativa, vol. 31, no. 1, 2025, January-June, pp. 1-20

Universidad de Granada
Valencia, España

DOI: <https://doi.org/10.30827/relieve.v31i1.28345>

Available in: <https://www.redalyc.org/articulo.oa?id=91681713003>

- How to cite
- Complete issue
- More information about this article
- Journal's webpage in redalyc.org

redalyc.org

Scientific Information System Redalyc

Diamond Open Access scientific journal network

Non-commercial open infrastructure owned by academia

Questionnaire validation on the perception and satisfaction of academics with professional evaluation systems

Validación de un cuestionario sobre la percepción y satisfacción del profesorado universitario con los sistemas de evaluación profesional

Validação de um questionário sobre a percepção e a satisfação do pessoal docente universitário relativamente aos sistemas de avaliação profissional

大学教师对职业评估系统感知与满意度问卷的验证

التحقق من صحة استبيان حول تصور ورضا أعضاء هيئة التدريس الجامعيين عن أنظمة التقييم المهني

Caballero Rodríguez, Katia ⁽¹⁾ ; Mula-Falcón, Javier^a ⁽²⁾ ; García Jiménez, Eduardo ⁽³⁾ 

⁽¹⁾ University of Granada (Spain); ⁽²⁾ University of Cádiz (Spain) ⁽³⁾ University of Seville (Spain).

Abstract

One of the purposes of the transformation of higher education is the improvement of quality. At this regard, evaluation and accreditation processes have been incorporated, although they still need to be settled. The objective of this work is to validate the questionnaire "Perceptions and satisfaction of academics on the development and evaluation of their professional activity" (PSPU). To do this, a search and review of instruments was carried out; it allowed the design of a questionnaire to measure the perceptions and level of satisfaction that academics have on evaluation systems. Next, the content of the questionnaire was validated, through the judgment of ten experts. The questionnaire was administered to the population, made up of academics from Andalusian public universities, obtaining a sample of 2183 subjects (12.4%). A construct validity study was carried out through a multigroup confirmatory factor analysis that allowed the identification of three factors. Also, a reliability study was carried out whose results led to the creation of a theoretical model configured by three dimensions, with a Cronbach's Alpha greater than 0.80. The results of this study support the validity and reliability of the questionnaire, which measures both the satisfaction and the perceptions of academics about the evaluation systems of their professional performance. It is concluded that its application will generate key information for designing fairer and more effective university policies and evaluation practices, improving academic well-being and the quality of their functions, to the benefit of the Higher Education system.

Keywords: Questionnaire, validation, psychometric study, perceptions, professional satisfaction, academics evaluation, academics

Resumen

La transformación de la educación superior tiene entre sus propósitos la mejora de la calidad y, para ello, se han incorporado procesos de evaluación y acreditación que, hoy por hoy, siguen buscando afianzarse. El objetivo de este trabajo es validar el cuestionario "Percepciones y satisfacción del profesorado universitario sobre el desarrollo y evaluación de su actividad profesional" (PSPU). Para ello, se realizó una búsqueda y revisión de instrumentos que permitió iniciar el diseño de un cuestionario que midiese las percepciones y el nivel de satisfacción que tiene el profesorado sobre los sistemas de evaluación. Seguidamente, se llevó a cabo la validación del contenido del cuestionario, mediante el juicio de diez expertos. El cuestionario se administró a la población, compuesta por profesorado funcionario y contratado de las universidades públicas andaluzas, obteniéndose una muestra de 2183 sujetos (12.4%). El estudio de la validez de constructo mediante un análisis factorial confirmatorio multigrupo permitió identificar tres factores y el estudio de la fiabilidad nos llevó a crear un modelo teórico configurado por tres dimensiones, para las que se obtuvo un Alpha de Cronbach superior a 0,80. Los resultados confirman la validez y fiabilidad del cuestionario, que mide tanto la satisfacción como las percepciones del profesorado universitario sobre los sistemas de evaluación de su desempeño profesional. Se concluye que su aplicación permitirá generar información clave para diseñar políticas universitarias y prácticas de evaluación más justas y efectivas, mejorando el bienestar académico y la calidad de sus funciones, en beneficio del sistema de Educación Superior.

Palabras clave: Cuestionario, validación, estudio psicométrico, percepciones, satisfacción profesional, evaluación del profesorado, profesorado universitario

Received/Recibido

Jun 01, 2024

Approved /Aprobado

Mar 28, 2025

Published/Publicado

Jun 30, 2025

Resumo

A transformação do ensino superior tem entre os seus objetivos a melhoria da qualidade e, para tal, foram incorporados processos de avaliação e acreditação que se continua a tentar consolidar. O objetivo deste trabalho é validar o questionário “Percepções e satisfação do pessoal docente universitário sobre o desenvolvimento e a avaliação da sua atividade profissional” (PSPU). Para o efeito, realizou-se a uma pesquisa e revisão de instrumentos para iniciar a conceção de um questionário destinado a medir as percepções e o nível de satisfação dos professores relativamente aos sistemas de avaliação. De seguida, o conteúdo do questionário foi validado pelo parecer de dez peritos. O questionário foi aplicado à população, constituída por funcionários e docentes contratados das universidades públicas andaluzas, obtendo-se uma amostra de 2183 sujeitos (12,4%). O estudo da validade do constructo através de uma análise factorial confirmatória multigrupo permitiu identificar três fatores e o estudo da fiabilidade levou-nos a criar um modelo teórico constituído por três dimensões, para as quais se obteve um Alfa de Cronbach superior a 0,80. Os resultados confirmam a validade e a fiabilidade do questionário, que mede tanto a satisfação como as percepções do pessoal docente universitário sobre os sistemas de avaliação do seu desempenho profissional. Conclui-se que a sua aplicação permitirá gerar informação fundamental para a conceção de políticas universitárias e práticas de avaliação mais justas e eficazes, melhorando o bem-estar académico e a qualidade das suas funções, em benefício do sistema de Ensino Superior.

Palavras-chave: Questionário, validação, estudo psicométrico, percepções, satisfação profissional, avaliação dos professores, docentes universitários.

摘要

高等教育的转型旨在提升教育质量，因此引入了评估与认证流程，至今仍在不断完善。本研究旨在验证“大学教师对其职业活动发展与评估的感知与满意度”问卷（PSPU）。研究首先通过文献检索与分析，设计了用于测量教师对评估系统感知与满意度的问卷。随后，通过十位专家的评审对问卷内容进行有效性验证。问卷面向安达卢西亚公立大学的专任与合同制教师发放，共获得 2183 份有效样本（12.4%）。通过多组确认性因子分析，确定了三大因子，并通过信度分析建立了三维理论模型，各维度的 Cronbach α 系数均高于 0.80。结果显示，该问卷在测量大学教师对职业表现评估系统的满意度与感知方面具有良好的信效度。研究结论认为，该工具可为制定更加公正有效的大学政策及评估实践提供关键信息，进而提升学术福祉与高等教育系统的功能质量。

关键词：问卷，验证，心理测量研究，感知，职业满意度，教师评估，高校教师。

ملخص

تندرج عملية تحول التعليم العالي ضمن أهدافها تحسين الجودة، ولهذا الغرض، تم إدراج عمليات التقييم والاعتماد التي لا تزال، حتى اليوم، تسعى إلى ترسيخ مكانتها. يهدف هذا العمل إلى التحقق من صحة الاستبيان المعنون بـ "تصورات ورضا أعضاء هيئة التدريس الجامعيين حول تطوير وتقييم لتحقيق ذلك، تم إجراء بحث ومراجعة للأدوات المتوفرة، مما أتاح الشروع في تصميم استبيان يقيس تصورات ودرجة (PSPU) "نشاطهم المهني رضا هيئة التدريس تجاه أنظمة التقييم. بعد ذلك، تم التحقق من صلاحية محتوى الاستبيان من خلال تقييم عشرة خبراء. وقد تم تطبيق الاستبيان على مجتمع الدراسة المكون من الأساتذة الرسميين والمتعاقدين في الجامعات الحكومية الأندلسية، حيث تم الحصول على عينة مكونة من 2183 مشاركاً (بنسبة 12.4%). وأتاح تحليل صلاحية البنية من خلال تحليل عاملي تأكدي متعدد المجموعات تحديد ثلاثة عوامل، كما أدى تحليل الموثوقية إلى بناء نموذج نظري مكون من ثلاث أبعاد، تم الحصول فيها على معامل ألفا كرونباخ يفوق 0.80. تؤكد النتائج صلاحية ومصادقية الاستبيان، الذي يقيس كلاً من رضا وتصورات أعضاء هيئة التدريس الجامعيين تجاه أنظمة تقييم أدائهم المهني. ويُستنتج أن تطبيق هذا الأداة سيساهم في توليد معلومات أساسية لتصميم سياسات جامعية وممارسات تقييم أكثر عدلاً وفعالية، مما يحسن الرفاه الأكاديمي وجودة أداء المهام، لصالح نظام التعليم العالي

الكلمات المفتاحية: الاستبيان، التحقق من الصدق والثبات، الدراسة السيكمترية، التصورات، الرضا المهني، تقييم هيئة التدريس، أعضاء هيئة التدريس الجامعيو

Introduction

Changes in higher education, along with discussions articulated around the themes of quality improvement, quality assurance, and standardization, have prompted the current drive towards greater systematization of evaluation processes (Hazelkorn, 2018; Pattaro et al., 2022). However, some authors argue that these processes are a way of ensuring administrative control rather than genuinely pursuing quality (Brøgger, 2019; Stensaker, 2018; Raaper, 2016).

For university teaching staff, evaluations are conducted at various points throughout their professional careers. The outcomes of these evaluations have a significant impact on accessing promotion, securing salary incentives, obtaining funding, and other related (Fernández Cano, 2021). Notably, these evaluations prioritize research activities, particularly publications. While some view these processes as promoting democratic legitimacy and transparency (Huisman, 2018), others perceive them as tools that undermine the objectives, values, and functions of the university. Moreover, these critics argue that the emphasis on competitiveness, individualization, productivity, and the commodification of knowledge are at odds with core university values (Tomicic, 2019; Brunner et al., 2019).

Some studies have examined the impact of these evaluations on university faculty from different perspectives (Ursin et al., 2020; McCune, 2019; Shams, 2019; Mula-Falcón & Caballero, 2022). However, what are faculty members' perceptions of these evaluations of their professional activity? And how satisfied are they with these systems? To address these questions, we focused on constructing and validating a questionnaire to determine the perceptions and level of satisfaction of university teaching staff regarding the evaluation of their professional activity.

Among the studies examining university teachers' perceptions of evaluation systems, Newton's (2000) study stands up. He conducted a case study in the UK using

interviews and found that teachers perceive quality assurance processes to be more about control and accountability than professional enhancement and that this drives them to develop strategies to comply with the 'rules of the game.' Additionally, Cardoso, Rosa, and Santos (2013) administered a questionnaire to Portuguese university teaching staff and found that although teaching staff tends to support most of the goals and purposes of quality assessment and accreditation systems, they prefer assessment methods that prioritize improvement as opposed to those that are used as a means of exerting control.

From another perspective, Raaper (2016) conducted a discourse analysis involving sixteen UK academics. This study revealed that these academics perceive frustration with neoliberal reforms in general and evaluation systems in particular. And while they do not openly resist these systems, they internalize and exhibit resistance in their personal modes of action. This study also highlights how neoliberal technology applied in universities governs professional practices and shapes academic subjectivities. In a similar vein, another qualitative study by Abrizah et al. (2019) in Malaysia highlights that academics are acutely aware of the impact of these neoliberal technologies on their careers and practices, with a particular impact on their ethics.

Finally, the study by Zhang et al. (2020) is noteworthy. They found through a quantitative study in eight Chinese universities that

academics' perceptions of governance, university management and working conditions have a statistically significant impact on their job satisfaction. An effect which occurs independently of variables such as age, gender, academic category or discipline.

On the other hand, research has also been conducted on academics' satisfaction, highlighting the influence of factors such as reputation, working conditions and promotion processes. For example, Shin and Jung (2014) carried out a study using a questionnaire in

nineteen countries to examine job satisfaction and stress among university teachers. Their findings indicate that satisfaction levels vary and are more closely linked to prestige and social reputation than stress levels, which underlines the relevance of external factors in academics' perceptions of well-being. Szromek and Wolniak's (2020) study of 763 Polish academics agrees with this, also linking satisfaction levels with working conditions.

However, multiple research studies highlight promotion processes as the most important factor of academics' satisfaction levels (Mohan & Fauzi, 2021). In this regard, the findings of Addisu's (2018) study relate high levels of satisfaction to the existence of clear, fair and accessible promotion criteria.

In the Spanish context, this trend is also manifested through various studies that analyze academic satisfaction. Albert et al. (2018), in a quantitative study with a sample of 1432 academics, highlight a strong relationship between satisfaction levels and research activity performance. According to their findings, evaluation and incentive systems that prioritize scientific output (articles) have a direct impact on faculty job satisfaction. In a complementary way, Caballero (2013) found that university teaching staff were dissatisfied with access and

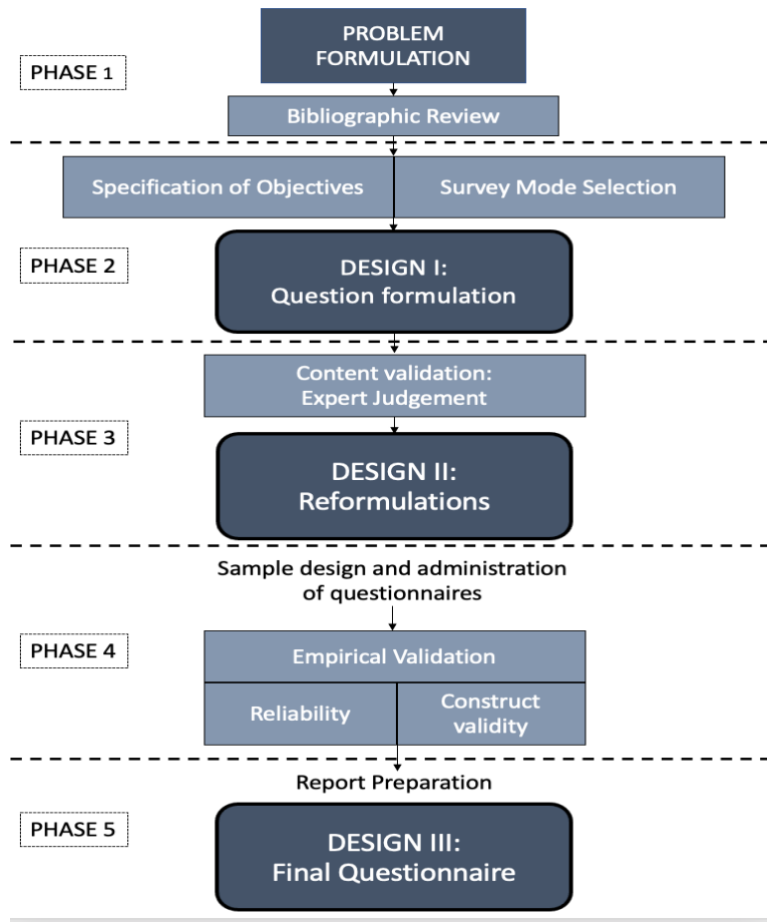
promotion processes in Spanish universities, as well as evaluation and incentive systems. Their study also revealed significant differences according to variables such as professional category, age, scientific discipline, and gender.

Overall, the research reviewed shows two distinct lines of study: teachers' perceptions of appraisal systems for their performance and their professional satisfaction. However, these dimensions are rarely analyzed together, which hinders a comprehensive understanding of the impact of these policies. In this context, the instrument presented here seeks to update, complement and deepen these lines of research, providing a tool that links both perspectives and analyses their effect on both academics' professional activity and their personal lives.

Objectives

Therefore, the present study aimed to construct and validate a quantitative research instrument to determine the perceptions and level of satisfaction among university staff by evaluating their professional activity and its influence on their professional and personal lives. To this end, a process divided into five phases was followed (see Figure 1), following the proposal made by Cohen and Manion (2002).

Figure 1. Phases used to develop the questionnaire



Each step of the design and validation process is detailed below.

Method

Construction of the questionnaire

Review of instruments

To identify aspects of interest and essential elements to be assessed for the development of the questionnaire, a literature review was conducted. This review focused on analyzing instruments used in studies with similar objectives to those of the present research. A bibliographic mapping of the literature was carried out across three international databases (WoS, Scopus, and ERIC) to examine the main methodological trends in this field of research, the findings of which can be found in Mula-Falcón et al. (2021). Additionally, to complement the literature review, a search was conducted in the Google Scholar database.

This search allowed the identification of studies not included in the aforementioned databases due to their quality criteria or international focus (Caballero, 2009; Teichler et al., 2013; Santos et al., 2015). Finally, the instruments selected according to the criteria of thematic suitability of the instrument to the criteria of thematic suitability and accessibility for analysis are described below:

- *Construction and development of the professional identity of university teaching staff -CDIPPU-* (Caballero, 2009). This questionnaire evaluates the development of the professional identity of university teaching staff. It has 117 items organized around seven dimensions: 1) General aspects (conception of the different roles of teaching staff, aspects that contribute to the choice of profession and professional development); 2) Training; 3) Teaching; 4) Research; 5) Access and promotion; 6) Climate of interpersonal

relationships (students and colleagues); and 7) Evaluation and incentives.

- *Changes in research communities and academic work* (Ylijoki et al., 2011). This questionnaire is designed to gather information from university teaching staff to explore their research work and its progression in recent years. It consists of four dimensions: 1) Research organization; 2) Research objectives and modes of research; 3) Research challenges and contextual information; and 4) Previous experience.

- *Changing Academic Profession -CAP-* (Teichler et al., 2013). The questionnaire aims to analyze the current state of the academic profession. It covers various aspects such as academics' knowledge, functions, productivity, and attitudes, organized into six dimensions: 1) Career and professional status; 2) General work situation and activities; 3) Teaching; 4) Research; 5) Management; and 6) Personal background.

- *Questionnaire on teaching and research self-efficacy and links between the two* (Tesouro et al., 2014). This brief questionnaire analyzes the self-efficacy of university teaching staff concerning their teaching and research work. It comprises 9 Likert-type scale items (7 response options) organized around three dimensions (perceived self-efficacy in research work, perceived self-efficacy in teaching work, convictions, and beliefs).

- *Intensification and precariousness in the working conditions of university teaching staff* (Santos et al., 2015). This questionnaire aims to analyze the impact of the new university context (intensification of work) on university teaching staff. It consists of 58 Likert-type scale items (5 response options) organized around four dimensions: 1) Work-life balance; 2) Salaries; 3) Working conditions (material resources, evaluation, competitiveness, research, promotion, workload); and 4) Relations with the environment (students and colleagues).

- *New researcher identity formation -FINSS-* (Castelló et al., 2017). This

questionnaire seeks to analyze and establish the connections between doctoral students' conceptions of research and the key variables in their training process. It is designed as a Likert-type scale questionnaire with 7 response options.

A review of these questionnaires suggests that while they share the common objective of gathering information on the professional activities of university teaching staff, there are notable differences in their approach to the research topic and the structure of the instruments.

In an attempt to categorize them, the questionnaires designed by Caballero (2009), Ylijoki et al. (2011), and Teichler et al. (2013) adopt a more descriptive perspective as they seek to understand the situation of teaching staff concerning the profession as a whole and the functions they perform. However, the instruments developed by Castelló et al. (2017) and Tesouro et al. (2014) are more focused on assessing teachers' level of training and self-efficacy concerning their professional activities. The questionnaires developed by Santos et al. (2015) and Zenatta et al. (2017) adopt a more critical approach, similar to the questionnaire presented here. They aim to evaluate the impact of the transformation of Higher Education on teachers, specifically in terms of work intensification and changes in professional identity, respectively. However, while our instrument shares a general interest in this issue, it is specifically focused on exploring how teachers perceive and experience the evaluation systems implemented as part of this ongoing transformation in higher education. It aims to examine the influence of these systems on their professional activities and personal lives. Therefore, our questionnaire is novel and tailored to the specific contextual reality that is being addressed.

Initial design of the questionnaire

The questionnaire "Perceptions and Satisfaction of university teaching staff on the Development and Evaluation of their professional activity" (PSPU) aims to assess

the perceptions and level of satisfaction among teaching staff concerning evaluation systems in general; the influence these have on their professional activity; and the consequences of these for their professional and personal lives. The instrument consists of 118 items, divided as follows:

- Identification data:
 - Socio-demographic questions: This section consists of 11 items, some of which are nominal (gender, university, department, center, professional category, academic discipline, past position, current position), while others are scalar (age, years of experience, and level of family responsibility).
 - Identification, dedication, and overall satisfaction questions. This section contains

seven items combining nominal, scalar, and Likert-type questions.

Perception and satisfaction. Thirty-nine dual-response items (78 in total) were designed and grouped into four dimensions: 1. general; 2. teaching; 3. research; 4. personal. For this part of the questionnaire, two 7-value Likert-type scales were developed, resulting in two parallel columns; one to measure perception and the other to measure satisfaction (see example in Table 1). This type of wide-range scale was chosen as it allows for nuances in the participants' ratings and grants them the freedom to select the most "accurate" option rather than the one that is "closest" to their opinion. According to Joshi et al. (2015), the 7-point scale, by providing a wider variety of options, increases the likelihood of capturing participants' objective reality.

Table 1. Example of a dual Likert-type scale dimension

General	My perception as a university faculty member							How my perception makes me feel						
	1= I totally disagree 7= I fully agree							1= Not at all satisfied 7= Very satisfied						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
16. The evaluation criteria for accreditation or incentives (six-year periods...) determine the way in which I carry out my academic activities.														
17. The evaluation criteria for accreditation or incentives adequately assess my professional quality.														
18. The evaluation criteria positively contribute to enhancing my academic performance.														

To provide a more comprehensive understanding of the instrument, we present the correlation between the objectives that

guided the construction of the instrument, and the dimensions and items included within it (see Table 2).

Table 2. Correspondence between objectives and dimensions, and items of the questionnaire

Objectives:		
1. To determine whether there are significant differences in teachers' responses according to descriptive variables.		Items 1 to 10
2. To analyze the degree of identification, dedication, and satisfaction concerning teaching, research, transfer, and, where appropriate, management activities.		Items 11 to 15
3. To analyze the perception and degree of satisfaction of university teaching staff concerning assessment systems. Specifically, a:		
Dimension: General		
	<i>Perception</i>	<i>Satisfaction</i>
... evaluation systems in general	Items: 16.1 to 21.1	Items: 16.2 to 21.2
	A. Influence on professional activity (16, 18, 19)	
	B. Whether they value professional quality (17)	
	C. Time commitment (20, 21)	
Dimension: Teaching		
	<i>Perception</i>	<i>Satisfaction</i>
... systems for evaluating teaching activity	Items: 22.1 a 26.1	Items: 22.2 a 26.1
	D. Influence on teaching (22 a 26)	
Dimension: Research		
	<i>Perception</i>	<i>Satisfaction</i>
...systems for evaluating research activity	Items: 27.1 to 33.1	Items: 27.2 to 33.2
	E. Influence on research (27 to 33)	
Dimension: Personal level		
	<i>Perception</i>	<i>Satisfaction</i>
...the influence of evaluation systems at the personal level	Items: 34.1 to 39.1	Items: 34.2 to 39.2
	F. Influence on well-being and health (34, 36, 37, 39)	
	G. Work-life balance (35, 38)	

Population and Sample

One of the critical aspects of any research process is the precise specification of the subjects to be studied. This section describes the sample selection process, both for expert judgment (content validity) and validation of the questionnaire (construct validity).

For the content validity phase, experts were chosen through expert sampling (Singh, 2007).

Therefore, they were selected intentionally, according to two fundamental criteria: a) that they were experts in the subject matter under study, and b) that they were, or had been,

affiliated with evaluation agencies with in-depth knowledge of the subject matter. The panel consisted of five women and five men from various Spanish universities.

Concerning the sample used for construct validity, the initial objectives guided the definition of the target population, which comprised all university lecturers at the nine public universities in the Andalusian region (Almeria, Cadiz, Cordoba, Granada, University of Huelva, Jaen, Malaga, Pablo de Olavide and Seville).

Information was requested from the General Secretariat for Universities, Research, and Technology of the Andalusian Regional Government to determine the population's size. According to the data provided by this body, the

population consisted of a total of 17673 teachers. Table 3 shows the distribution of the population of Andalusian university academics by category and university.

Table 3. Andalusian Public University Teaching and Research Staff by category and university.

Category ^(b)		UAL	UCA	UCO	UGR	UHU	UJA	UMA	UPO	USE	Total
Civil Servant	Full Professor	141	203	260	741	97	139	342	99	657	2679
	University School Professor		21	18	15	15	7	27	1	41	145
	Associate Professor	362	442	373	1457	279	413	830	212	1496	5864
	University School Associate Professor	16	82	23	42	20	31	57	6	82	359
Non-Civil Servant	Assistant			154							154
	Assistant Professor	111	150	132	337	27	66	125	60	262	1270
	Senior Lecturer	53	151	140	391	89	92	218	184	477	1795
	University Collaborator	14	48	7	101	50	29	24	18	148	439
	Associate	114	343	320	392	118	66	490	295	751	2889
	Emeritus Professor	2	2			1		14		22	41
	Visitors				14		2	3	1		20
	Others	124	297		214	222	130	461	150	393	2018
TOTAL		940	1739	1442	3706	918	980	2591	1026	4331	17673

Note: a. UAL = the University of Almeria; UCA = the University of Cadiz; UCO = the University of Cordoba; UGR = the University of Granada; UHU = the University of Huelva; UJA = the University of Jaen; UMA = the University of Malaga; UPO = University of Pablo de Olavide; USE = the University of Seville; b. The categories are displayed in Spanish. The equivalence between the Spanish and English categories is explained in Annex 1; Source: Department of Education, Culture and Sports of the Regional Government of Andalusia.

Once the population had been defined, the study sample was determined. The entire population was invited to participate (invited sample), of which 2588 participants responded (accepted sample). Of the accepted sample, not all completed the questionnaire, resulting in an information-producing sample of 2183 participants. This final sample represents 12.4% of the population, with a sampling error of 1.96 for a confidence interval of 95%.

No statistically significant differences were found in the distributions of the sample and the

population across universities ($p = .72$), when applying the Mann-Whitney U test. The use of the Mann-Whitney U test is justified because the distribution of the sample data, which answered the questionnaire in each university, did not fit the parameters of a normal distribution as tested by the Kolmogorov-Smirnov and Shapiro-Wilk tests. Table 4 shows the distribution of the population and sample by university.

Table 4. Distribution of the population and sample according to university

	Population	Sample	% Population	% Sample	% Total
UAL	940	97	5.3	4.4	10.3
UCA	1739	240	9.8	11.0	13.8
UCO	1442	173	8.2	7.9	12.0
UGR	3706	608	21.0	27.9	16.4
UHU	918	88	5.2	4.0	9.6
UJA	980	149	5.5	6.8	15.2
UMA	2591	115	14.7	5.3	4.4
UPO	1026	124	5.8	5.7	12.1
USE	4331	589	24.5	27.0	13.6
Total	17673	2183	100	12.4	

Note: UAL = the University of Almeria; UCA = the University of Cadiz; UCO = the University of Cordoba; UGR = the University of Granada; UHU = the University of Huelva; UJA = the University of Jaen; UMA = the University of Malaga; UPO = University of Pablo de Olavide; USE = the University of Seville.

Similarly, a Mann-Whitney U test ($p=0.67$) revealed no statistically significant differences in the distributions of the sample and the population according to professional category.

Table 5 shows the distribution of the population and the sample by professional category.

Table 5. Distribution of the population and sample according to professional category

Category ^(b)		UAL	UCA	UCO	UGR	UHU	UJA	UMA	UPO	USE	Total
Civil Servant	Full Professor	141	203	260	741	97	139	342	99	657	2679
	University School Professor		21	18	15	15	7	27	1	41	145
	Associate Professor	362	442	373	1457	279	413	830	212	1496	5864
	University School Associate Professor	16	82	23	42	20	31	57	6	82	359
Non-Civil Servant	Assistant			154							154
	Assistant Professor	111	150	132	337	27	66	125	60	262	1270
	Senior Lecturer	53	151	140	391	89	92	218	184	477	1795
	University Collaborator	14	48	7	101	50	29	24	18	148	439
	Associate	114	343	320	392	118	66	490	295	751	2889
	Emeritus Professor	2	2			1		14		22	41
	Visitors				14		2	3	1		20
	Others	124	297		214	222	130	461	150	393	2018
TOTAL		940	1739	1442	3706	918	980	2591	1026	4331	17673

Note: a. The category 'Other' includes pre- and post-doctoral, and interim substitutes; b. The equivalence between the Spanish and English categories is explained in Annex 1.

Finally, Table 6 shows the final information-producing sample disaggregated according to key socio-demographic variables

such as gender, age, scientific discipline and professional experience

Table 6. Distribution of the sample according to key variables

Sex				
Men 1195 (54.74 %)		Women 965 (44.21 %)		No answer 23 (1.05 %)
Age				
Up to 35 286 (13.1 %)		Between 36-55 1240 (56.8 %)		More than 55 657 (30.10 %)
Discipline				
Arts and Humanities 394 (18.05 %)	Sciences 432 (19.79 %)	Health Sciences 332 (15.21 %)	CC. Social and Legal Sciences 670 (30.69 %)	Engineering and Architecture 355 (16.26 %)
Professional experience				
Less than 5 367 (16.8 %)	Between 5-10 328 (15 %)	Between 11-20 530 (24.3 %)	Between 21-30 530 (24.3 %)	More than 30 428 (19.6 %)

Questionnaire administration and data collection

To gain access to our study population, which consisted of all teaching and research staff, as well as contracted research staff at Andalusian public universities, we contacted the following:

- The General Secretariat for Universities, Research, and Technology of the Andalusian Regional Government.
- The General Secretariat of the nine Andalusian public universities (Almeria, Cadiz, Cordoba, Granada, Huelva, Jaen, Malaga, Pablo de Olavide, and Seville).
- The Agency for Scientific and University Quality of Andalusia (ACCUA from the Spanish acronym).

The request for data was submitted electronically to the various organizations, given that telephone enquiries made it difficult to indicate with certainty which of them could provide us with the specific data of interest.

The General Secretariat for Universities, Research, and Technology of the Andalusian Regional Government provided information on the total number of lecturers in Andalusian

Public Universities broken down by professional category, according to the data provided by these universities in January 2022.

The questionnaire was designed in two formats. Initially, a paper version was created to establish the questionnaire's structure and overall design. Subsequently, an online version was developed using LimeSurvey, a freely available software application for conducting online surveys.

Given the size of the target population, it was decided to begin by administering the questionnaire online. To facilitate its dissemination, a mass email was sent to the institutional e-mail addresses of the teaching staff of all Andalusian universities. In the initial email, the entire population was invited to participate, accompanied by a message outlining the research objectives and ethical considerations. This process was repeated twice as a reminder for those who had not yet responded to the questionnaire, with a three-week interval between the mailings. Given the sample size obtained, it was unnecessary to print out paper questionnaires for direct distribution. This approach allowed for a more efficient questionnaire distribution process on three levels: reducing administration and

collection time, saving on printing and travel costs, and promoting sustainability.

Data analysis

Validity and reliability analyses were conducted to study the psychometric properties of the instrument "Perceptions and satisfaction of university teaching staff on the development and evaluation of their professional activity" (PSPU) for both the whole scale and subscales.

Expert judgment was used to establish content validity. Once the experts had been contacted, they were provided with the questionnaire, as well as a validation template constructed ad hoc and based on the models developed by García-Garnica (2016), Martín-Romera and Molina (2017), and Reyes and Hernández-Moncada (2021). For each dimension, two four-value scales were provided to assess the relevance (1 = Not at all relevant; 4 = Very relevant) and clarity (1 = Not at all clear; 4 = Very clear) of each item, while a table of observations was also drawn up for each item. The concordance in the responses to the scale was determined using Kendall's W.

Construct validity was determined through multigroup confirmatory factor analysis, choosing age as the grouping variable. The choice of this variable was prompted by the fact that age allowed us to reduce the number of groups to be studied without modifying the existing professional categories. The unweighted least squares method was used as an estimator, given that the responses to the questionnaire items did not follow a multivariate normal distribution. Cronbach's Alpha index was calculated to determine the internal consistency of the questionnaire.

Results

Validation of the questionnaire

Content validity

Calculating Kendall's coefficient of concordance revealed that the experts rated the different dimensions of the instrument positively. On the Relevance scale, a Kendall's

W value of .436 allows us to reject H_0 for $X^2=196.34$, with a degree of significance $<.001$. On the Clarity scale, a Kendall's W value of .284 allows rejecting H_0 for $X^2=125.30$, with a degree of significance $<.001$.

In addition, the qualitative comments provided by the experts were thoroughly analysed, which allowed for the optimisation of the wording of the questionnaire. Improvements included the detection and correction of typos, the elimination of redundancies and irrelevant elements, and the adjustment of expressions to make them more precise and appropriate (e.g. 'misrepresentation of data' was changed to 'insufficiently verified data'). Concepts were also simplified to make them easier to understand (e.g. 'teaching or research identity' was replaced by 'teaching or research activity') and inclusive language was adopted, avoiding sexist expressions. The wording of various items was also clarified and specified to reduce ambiguities, such as specifying 'evaluation criteria' as 'teaching evaluation criteria', 'research evaluation criteria' or 'evaluation criteria for accreditation or incentive', depending on the context. Other adjustments included the addition or deletion of terms to improve clarity (e.g. changing 'dedicates to their daily work' to 'dedicates to their daily academic work') and the use of more direct and effective wording in general.

Construct validity

Confirmatory factor analysis identified three factors that explain the variance in the teachers' responses to the questionnaire. The initial proposal, which considered four dimensions (general, teaching, research, and personal), was reduced to form a new theoretical model based on the following three dimensions:

1. Evaluation criteria. This dimension includes those items that assess the teaching staff's perception and level of satisfaction concerning the assessment criteria.

2. Influence of assessment criteria on professional activity. This covers the items aimed at assessing the teaching staff's satisfaction concerning the influence of the assessment criteria on the development of teaching and research activity.

dimension includes the items that describe the perception and satisfaction of the teaching staff concerning the effects of the assessment criteria, both at a personal and professional level.
3. Consequences of the assessment criteria for professional and personal life. This

Table 7 shows the relationship between the four initial dimensions and the three final ones.

Table 7. Dimensions of the initial and final questionnaire with the respective items

Initial questionnaire		Final questionnaire	
Socio-demographic and descriptive questions	Items 1 to 15	Socio-demographic and descriptive questions	Items 1 to 15
Initial Dimensions	Initial Items	Final Dimensions	Final Items
General	16 to 21	Evaluation criteria	16.2, 17.1, 17.2, 18.1, 18.2, 19.1, 19.2, 23.2, 27.1, 27.2, 28.1, 28.2, 29.1, 29.2 y 33.2
Teaching	22 to 26	Influence of evaluation criteria on professional activity	17.2, 23.2, 24.2, 25.2, 27.2, 28.2, 29.2, 31.2, 32.2, 33.2, 35.2, 38.2 y 39.2
Research	26 to 33		
Personal life	34 to 39	Implications of the evaluation criteria for professional and personal life	16.2, 21.2, 28.1, 31.2, 32.2, 33.2, 34.2, 35.2, 38.2, 39.2

Table 8 shows that the fit indices (GFI, CFI, IFI, etc.) have values close to unity, and the error (RMSEA) is close to zero. This result indicates that the constructs used to create the

PSPU questionnaire correspond to the ratings empirically obtained from the teachers' responses.

Table 8. Fit indices

Index	Value
Comparative Fit Index (CFI)	.989
Tucker-Lewis Index (TLI)	.987
Bentler-Bonett Non-normed Fit Index (NNFI)	.987
Bentler-Bonett Normed Fit Index (NFI)	.982
Parsimony Normed Fit Index (PNFI)	.819
Bollen's Relative Fit Index (RFI)	.978
Bollen's Incremental Fit Index (IFI)	.989
Relative Noncentrality Index (RNI)	.989
Root mean square error of approximation (RMSEA)	.043
Goodness of fit index (GFI)	.995

The values shown in Table 9 correspond to the variance explained (R²) by the confirmatory factor model in each item of the questionnaire, according to the age group to which the respondent belongs. According to the values given in the table, the variance in the teachers' responses to the questionnaire is better explained in some age groups than in others. In this sense, the model explains most of the variance observed in the responses to the items corresponding to the age groups "up to 35 years" and "between 36 and 55 years".

Specifically, Dimensions 1 (Assessment criteria) and 2 (Influence of assessment criteria on professional activity) best explain the opinions of the "up to 35 years" age group in the following items:

- C23.2 "I feel that the teaching evaluation criteria favor my involvement in improving my students' learning".

- D33.2 "I feel that my participation in research projects, conferences and courses related to research is due to my interest in developing my research activity". E39.2

- E39.2 "I feel that the assessment criteria for access and promotion at university make me consider changing jobs or looking for other professional opportunities". Moreover, Dimension 3 ("Consequences of the assessment criteria for professional and personal life") best explains the opinions of the age group "up to 35 years" and also the group "between 36 and 55 years" in Item B21.2 "I feel that I spend too much time on the bureaucratic-administrative aspects inherent to my academic activity", with greater variability in responses in these age ranges than in the "over 55" group.

Only for item D28.1, "I feel that the research evaluation criteria encourage my research output", is more variability found in the opinions of the "over 55" group than the other two age groups.

Table 9. R² values.

Ítems	Up to 35	Between 36 and 55	Over 55	Ítems	Up to 35	Between 36 and 55	Over 55
16.2	.434	.501	.525	28.1	.268	.288	.450
17.1	.379	.456	.538	28.2	.692	.649	.678
17.2	.591	.565	.569	29.1	.501	.373	.455
18.1	.665	.562	.621	29.2	.629	.521	.650
18.2	.775	.727	.731	31.2	.329	.446	.360
19.1	.424	.363	.424	32.2	.558	.574	.757
19.2	.478	.496	.535	33.2	.430	.327	.226
21.2	.426	.328	.098	34.2	.819	.845	.739
23.2	.337	.280	.231	35.2	.901	.877	.816
24.2	.397	.376	.404	36.2	.757	.628	.458
25.2	.311	.354	.349	38.2	.312	.406	.404
27.1	.674	.663	.661	39.2	.472	.168	.281
27.2	.745	.737	.765				

Reliability of the questionnaire

Once the initial theoretical structure of the questionnaire had been modified to a three-dimensional model of teachers' perceptions and satisfaction with evaluating their professional activity, the internal consistency of each dimension was calculated. The

Cronbach's alpha value of .80 was exceeded in all three dimensions. Thus, in "Dimension 1: Evaluation criteria," this value was .92; in "Dimension 2: Influence of the evaluation criteria on professional activity", .86; and in "Dimension 3: Consequences of the evaluation criteria on professional and personal life", this value was .81.

Conclusions

This study has presented the process of constructing and validating the questionnaire "Perceptions and satisfaction of university teaching staff on the development and Evaluation of their professional activity" (PSPU). This instrument focuses on the evaluation processes of university academics, whose successful completion is essential to gain access to certain positions, achieve promotions, obtain salary supplements or increase social prestige (Fernández Cano, 2021).

The review of research on this subject reveal two main lines of study. On the one hand, there are perceptions of evaluation systems, frequently understood as mechanisms of control rather than improvement, with a direct influence on academic practices and subjectivities (Cardoso et al., 2013; Raaper, 2016; Abrizah et al., 2019). On the other hand, studies on job satisfaction, conditioned by factors such as working conditions, social prestige and, especially, promotion processes (Szromek & Wolniak, 2020; Albert et al., 2018; Mohan & Fauzi, 2021; Zhang et al., 2020). However, until now, these lines of research have not been integrated into a single instrument, which is the main innovation of the PSPU questionnaire.

The PSPU is an original instrument that contributes to understanding how academics feel and perceive their work in a context characterized by the evaluation and professional accreditation of university teaching staff. The content validity of the questionnaire was confirmed by expert judgment, based on the models developed by García-Garnica (2016), Martín-Romera and Molina (2017), and Reyes and Hernández-Moncada (2021). This validation process yielded a Kendall's coefficient of concordance that confirmed the dimensions of the questionnaire and enabled the development of a second version. Subsequently, the study population was defined, consisting of the university teaching staff of the nine Andalusian public universities, including civil

servants and contracted teaching and research staff. The questionnaire was administered to the entire population, obtaining 2588 responses, with an information-producing sample of 2183 participants (12.4% of the population). A Mann-Whitney U test revealed no statistically significant differences in the distributions of the sample and the population according to university or professional category.

The questionnaire was then empirically validated through two processes. First, construct validity was calculated using a multigroup confirmatory factor analysis, identifying three factors that explain the variance of the teaching staff's responses across three age groups. Second, a reliability study was conducted, the results of which enabled us to transform the theoretical model of the questionnaire, reducing it to three dimensions. Each of these dimensions obtained a Cronbach's Alpha value of over .80.

Although there are instruments designed to collect information on the professional activity of university faculty (Caballero, 2009; Ylijoki et al., 2011; Teichler et al., 2013; Tesouro, 2014; Castelló et al., 2017), there are few instruments that specifically address the impact of the transformation of Higher Education on faculty (Santos et al., 2015; Zenatta et al., 2017).

In this sense, the instrument by Santos et al. (2015), consisting of 58 Likert-scale questions with five levels of agreement/disagreement, addresses aspects such as relationships with students and co-workers, work-life balance, remuneration, attitudes towards evaluation, competitiveness, research, promotion and workload. Although it includes attitudes towards evaluation, the items are mainly oriented towards measuring the necessity and fairness of certain processes. On the other hand, the questionnaire by Zenatta et al. (2017), consisting of 29 items grouped into four factors, describes the level of faculty adherence to the institutional model by determining faculty identity through the detection of strategies adopted in the face of

changes in higher education. While both instruments could be considered complementary to ours in terms of their purpose, to our knowledge, no other questionnaire comprehensively addresses teachers' perceptions and level of satisfaction with assessment systems in a combined manner.

In conclusion, this study presents a validated instrument with an innovative approach, essential for analyzing the perceptions and satisfaction of university teaching staff regarding professional performance evaluation systems. It highlights their impact on both the professional and personal spheres. Furthermore, it allows for a detail exploration of academics' satisfaction in a context where evaluation systems play a crucial role in their well-being and professional fulfilment (Albert et al., 2016). Moreover, The PSPU questionnaire is applicable in other regions of Spain and even in Spanish-speaking countries. While differences and nuances among Spanish regions are insignificant due to the commonality of university policies, it may be necessary to consider contextualizing the instrument in other countries.

Finally, as with other research, this study has certain limitations. The main limitation lies in the wide variability of the teachers involved. Although an analysis of socio-demographic variables has been considered, there are personal variables that may affect academics' answers that have not been measured in this study, such as professional values or individual or reference group expectations.

Another limitation of the study is related to the instrument used to collect information. Although a questionnaire is an exploratory instrument that allows a first approach to a problem under investigation, it would be necessary to complement it with interviews with the subjects under investigation or, at least, with a representative sample of them. However, it is important to note that such interviews were carried out in the second part of the project in which this research is framed.

Practical and political implications

The use of this instrument has important practical and policy implications for the university environment. Firstly, the results derived from its use could serve as a starting point for an informed debate within the university community. This debate would help to redefine the dimensions of evaluation and to analyze the research results obtained, promoting a more inclusive and participatory approach in the design of future systems. This would not only strengthen the quality and fairness of evaluations, but also faculty confidence in the processes, leading to an improved working environment and greater sustainability of the university system.

In addition, the items and dimensions that make up the questionnaire work as valuable tools for institutions, offering a comprehensive view of the real situation of academics and allowing them to detect possible deficits, effects or inconsistencies in the system. More specifically, the results of the questionnaire can be used as a basis for an in-depth review of the current evaluation systems (access, promotion, incentives, etc.). This includes the possibility of redefining performance expectations and establishing fairer and more balanced criteria. Such adjustments would not only contribute to the development of more coherent and effective university policies but would also improve academics' working conditions. This development would have a positive impact on the professional well-being of academics and the quality of the functions they perform, which would ultimately benefit the higher education system as a whole.

On the other hand, beyond its diagnostic function, this questionnaire could encourage individual academics to reflect on their role in today's university and their interaction with evaluation processes, while providing them with useful indicators to guide self-evaluation and improvement processes.

Finally, in the current context of legislative changes, marked by the implementation of the new Organic Law of the University System (LOSU), it is important to underline the special

relevance of the questionnaire. Its application could provide a detailed insight into the strengths and weaknesses of the proposed evaluation system, opening the door to specific improvements in its design and implementation. This would not only help to identify problematic areas, but also offer the opportunity to propose adjustments that would optimize its functioning, and better align it with academics' needs and institutional aims.

Ethics Committee

The questionnaire 'Perceptions and satisfaction of university teaching staff on the development and evaluation of their professional activity' (PSPU) has been approved by the Research Ethics Committee of the University of Granada, being registered under number 2592/CEIH/2022.

Agradecimientos

This work has been funded by the Agencia Estatal de Investigación, Ministerio de Ciencia e Innovación de España, through the R+D+i project 'La influencia del neoliberalismo en las identidades académicas y en el nivel de satisfacción profesional' -NEOACADEMIC- (PID2019-105631GA-I00/AEI/10.13039/501100011033) and for the grants for the support and promotion of research at the University of Granada in the field of equality through the project 'Gender inequalities in the new managerial university and their impact on female academics' -DAMA- (INV-IGU199-2022). It also received funding from the Ministry of Universities (Spain) through the University Teacher Training Grants Programme (FPU19/00942).

References

Abrizah, A., Shah, N. A. K., & Nicholas, D. (2019). Malaysian early career researchers on the ethics of scholarly publishing. *Malaysian Journal of Library & Information Science*, 24(1), 75-96. <https://doi.org/10.22452/mjlis.vol24.no1.5>

Addisu, M. (2018). Determinants of Job Satisfaction Among Employees of Gondar

College of Teacher Education, Ethiopia. *Research on Humanities and Social sciences*, 8(21), 22-32.

Albert, C., Davia, M., & Legazpe, N. (2018): Job satisfaction amongst academics: the role of research productivity. *Studies in Higher Education*, 43(8). 1362-1377. <https://doi.org/10.1080/03075079.2016.1255937>

Brøgger, K. (2019). How education standards gain hegemonic power and become international: The case of higher education and the Bologna Process. *European Educational Research Journal*, 18(2), 158-180. <http://doi.org/10.1177/1474904118790303>

Brunner, J., Labraña, J., Ganga, F., & Rodríguez-Ponce, E (2019). Circulación y recepción de la teoría del "capitalismo académico" en América Latina. *Archivos Analíticos de Políticas Educativas*, 27(79), 1-32. <https://doi.org/10.14507/epaa.27.4368>

Caballero, K. (2009). *Construcción y desarrollo de la identidad profesional del profesorado Universitario* [Tesis Doctoral]. Universidad de Granada. <http://hdl.handle.net/10481/2200>

Caballero, K. (2013). Nivel de satisfacción del profesorado universitario con los sistemas de evaluación. *Revista de Educación*, 360, 483-508. <https://doi.org/10.4438/1988-592X-RE-2011-360-124>

Cardoso, S., Rosa, M. J., & Santos, C. S. (2013). Different academics' characteristics, different perceptions on quality assessment? *Quality Assurance in Education*, 21(1), 96-117. <https://doi.org/10.1108/09684881311293089>

Castelló, M., McAlpine, L., & Pyhältö, K. (2017). Spanish and UK post-PhD researchers: writing perceptions, well-being and productivity. *Higher Education Research & Development*, 36(6), 1108-1122. <https://doi.org/10.1080/07294360.2017.1296412>

- Cohen, L., & Manion, L. (2002). *Métodos de Investigación educativa*. La Muralla. <https://doi.org/10.1080/13562517.2019.1632826>
- Fernández-Cano, A. (2021). Letter to the Editor: publish, publish... cursed! *Scientometrics*, 126, 3673-3682. <https://doi.org/10.1007/s11192-020-03833-7>
- García-Garnica, M. (2016). Elaboración y validación de un cuestionario para medir prácticas eficaces de liderazgo pedagógico de la dirección. *Profesorado. Revista de Currículum y Formación del Profesorado*, 20(3), 493-526.
- Hazelkorn, E. (2018). The accountability and transparency agenda: Emerging issues in the global era. En A. Curaj, L. Deca & R. Pricopie (Eds.), *European higher education area: The impact of past and future policies* (pp. 423-440). Springer. https://doi.org/10.1007/978-3-319-77407-7_26
- Hernández, F., & Cuesta Saéz, J. D. (2009). Métodos Cuantitativos de Investigación. En M. P. Colás, L. Buendía & F. Hernández (2009). *Competencias Científicas para la realización de una tesis doctoral*. Davinci.
- Huisman, J. (2018). Accountability In Higher Education. En P. Nuno & J. Shin, *Encyclopedia of International Higher Education Systems and Institutions* (pp.1-5). Springer. https://doi.org/10.1007/978-94-017-9553-1_156-1
- Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert Scale: Explored and explained. *British Journal of Applied Science & Technology*, 7, 396-403. <https://doi.org/10.9734/BJAST/2015/14975>
- Martín-Romera, A., & Molina, E. (2017). Valor del conocimiento pedagógico para la docencia en Educación Secundaria: diseño y validación de un cuestionario. *Estudios Pedagógicos*, 43(2), 195-220. <https://doi.org/10.4067/S0718-07052017000200011>.
- McCune, V. (2019). Academic identities in contemporary higher education: sustaining identities that value teaching. *Teaching in Higher Education*, 26(1), 20-35. <https://doi.org/10.1080/13562517.2019.1632826>
- Mohan, P., & Fauzi, M. (2021). Job Satisfaction among Academics in Higher Education: A Systematic Review. *Turkish Online Journal of Qualitative Inquiry*, 12(3), 1457-1483.
- Mula-Falcon, J., & Caballero, K. (2022). Neoliberalism and its impact on academics: A qualitative review. *Research in Post-Compulsory Education*, 27(3), 373-390. <https://doi.org/10.1080/13596748.2022.2076053>
- Mula-Falcón, J., Lucena, C., Domingo Segovia, J., & Cruz-González, C. (2021). Early career researchers' identity: A qualitative review. *Higher Education Quarterly*, 76, 786-799. <https://doi.org/10.1111/hequ.12348>
- Newton, J. (2000). Feeding the beast or improving quality? Academics' perceptions of quality assurance and quality monitoring. *Quality in Higher Education*, 6(2), 153-162.
- Pattaro, A., Moura, P., & Kruijf, A. (2022). Transparency and Accountability in Higher Education as a Response to External Stakeholders and Rules: A Comparison Between Three Country-Case Studies. En E. Caperchione & C. Bianchi (Eds.), *Governance and Performance Management in Public Universities* (pp.15-49). Springer. https://doi.org/10.1007/978-3-030-85698-4_2
- Raaper, R. (2016). Academic perceptions of higher education assessment processes in neoliberal academia. *Critical Studies in Education*, 57(2), 175-190. <http://dx.doi.org/10.1080/17508487.2015.1019901>
- Reyes, O., & Hernández-Moncada, M. C. (2021). Formato: Validación de contenido por juicio de expertos. Instrumentos cuantitativos [Manuscrito no publicado]. <https://doi.org/10.13140/RG.2.2.26812.36486>

- Santos, A., Muñoz-Rodríguez, D., & Poveda, M. (2015). “En cuerpo y alma”: Insatisfacción y precariedad en las condiciones de trabajo del profesorado universitario. *Arxius*, 32, 13-14.
- Shams, F. (2019). Managing academic identity tensions in a Canadian public university: the role of identity work in coping with managerialism. *Journal of Higher Education Policy and Management*, 41(6), 619-632. <https://doi.org/10.1080/1360080X.2019.1643960>
- Shin, J. C., & Jung, J. (2014). Academics job satisfaction and job stress across countries in the changing academic environments. *Higher Education*, 67, 603-620. <http://dx.doi.org/10.1007/s10734-013-9668-y>
- Singh, K. (2007). *Quantitative Social Research Methods*. SAGE. <https://doi.org/10.4135/9789351507741>
- Stensaker, B. (2018). External Quality Assurance in Higher Education. En J. Shin & P. Teixeira (eds.), *Encyclopedia of International Higher Education Systems and Institutions*. Springer. https://doi.org/10.1007/978-94-017-9553-1_523-1
- Szromek, A., & Wolniak, R. (2020). Job satisfaction and problems among academic staff in higher education. *Sustainability*, 12(12). <https://doi.org/10.3390/su12124865>
- Teichler, U., Arimoto, A., & Cummings, W. (2013). *The Changing Academic Profession: Major Findings of a Comparative Survey*. Springer. <https://doi.org/10.1007/978-94-007-6155-1>
- Tesouro, M., Corominas, E., Teixidó, J., & Puiggalí, J. (2014). La autoeficacia docente e investigadora del profesorado universitario: relación con su estilo docente e influencia en sus concepciones sobre el nexo docencia-investigación. *Revista de Investigación Educativa*, 32(1), 169-186. <http://dx.doi.org/10.6018/rie.32.1.172771>
- Thoms, P., Dose, J., & Scott, K. S. (2002). Relationships Between Accountability, Job Satisfaction, and Trust. *Human Resource Development Quarterly*, 13(3), 307-323. <https://doi.org/10.1002/hrdq.1033>
- Tomicic, A. (2019). American dream, Humboldtian nightmare: Reflections on the remodelled values of a neoliberalized academia. *Policy Futures in Education*, 17(8), 1057-1077. <https://doi.org/10.1177/1478210319834825>
- Ursin, J., Vähäsantanen, K., McAlpine L., & Hökkä, P. (2020). Emotionally loaded identity and agency in Finnish academic work. *Journal of Further and Higher Education*, 44(3), 311-325. <https://doi.org/10.1080/0309877X.2018.1541971>
- Von Der Embse, N. P., Sandilos, L. E., Pendergast, L., & Mankin, A. (2016). Teacher stress, self-efficacy, and job satisfaction. *Learning and Individual Differences*, 50, 308-317. <https://doi.org/10.1016/j.lindif.2016.08.001>
- Ylijoki, O., Lyytinen, A., & Marttila, L. (2011). Different research markets: a disciplinary perspective. *Higher Education*, 62, 721-740. <https://doi.org/10.1007/s10734-011-9414-2>
- Zenatta, E., Ponce, T., García, L., Sánchez, C., & Gama, J. (2017). Diseño del cuestionario: Estrategias identitarias de académicos universitarios ante las reformas educativas. *Revista de Psicología*, 35(2). <https://doi.org/10.18800/psico.201702.011>
- Zhang, L., Fu, M., & Li, D. (2020). Hong Kong academics’ perceived work environment and job dissatisfaction: The mediating role of academic self-efficacy. *Journal of Educational Psychology*, 112(7), 1431-1443. <https://doi.org/10.1037/edu0000437>

Annex 1. Equivalence between Spanish and English categories

Tenured civil servant	Catedrático de Universidad (*Equivalent to rank to full Professor)	Ph.D. and national accreditation are required.
	Titular de Universidad (*Equivalent to rank of Associate Professor)	Ph.D. and national accreditation are required.
Tenured, non-civil servant	Contratado Doctor (*Equivalent to Associate Professor or Senior Lecturer)	Ph.D. required, national or regional accreditation required.
	Ayudante Doctor (Assistant Professor)	Ph.D. and national or regional accreditation are required (not from LOSU, passed in 2023). (Contract five years)
Non-tenured	Asociados (a part-time academic who keeps a parallel job)	Ph.D. might be required, along with experience in a specific professional field
	Other positions	Non-tenured. Ph.D. & accreditation not required. Provide cover for particular departmental needs

Authors / Autores

Caballero Rodríguez, Katia (kaballero@ugr.es)  0000-0002-2385-8996

Associate professor in the Department of Didactics and School Organisation at the University of Granada. Her research focuses on higher education, academic identity and professional development. She has led and participated in various research projects funded by public organisations and has completed different stays at international universities. She is a member of the FYDAD research group (Training, Development and Teaching).

Author Contribution (KCR): Development of the questionnaire, its dissemination and the process of drafting and revising the article.

Conflict of interest statement (KCR): Declares that there is no conflict of interest in the drafting of the article.

Mula-Falcón, Javier (javier.mula@uca.es)  0000-0002-1977-7026

PhD in Educational Sciences at the University of Granada. Teacher and researcher at the University of Cadiz and member of the FYDAD research group (Training, Development and Teaching). His main lines of research focus on higher education, teacher professional development and educational policy.

Author Contribution (JMF): Development of the questionnaire, its dissemination and the process of drafting and revising the article.

Conflict of interest statement (JMF): Declares that there is no conflict of interest in the drafting of the article.

García Jiménez, Eduardo (egarji@us.es)  0000-0002-5885-8267

Full professor of Educational Evaluation at the University of Seville. Member of the research group 'LITERACIES: Literacy, multilingualism, diversity and social justice'. His research activity focuses on three main areas: educational assessment, research methodology and competence in linguistic communication.

Author Contribution (EGJ): Development of the questionnaire, its dissemination and the process of drafting and revising the article

Conflict of interest statement (EGJ): Declares that there is no conflict of interest in the drafting of the article.



Revista ELectrónica de Investigación y EValuación Educativa
E-Journal of Educational Research, Assessment and Evaluation

[ISSN: 1134-4032]



Esta obra tiene [licencia de Creative Commons Reconocimiento-NoComercial 4.0 Internacional](https://creativecommons.org/licenses/by-nc/4.0/).

This work is under a [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/).