



Exploring the role of generic competencies in employability and academic performance of students of psychology

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Abstract

This paper analyses the relation between generic competencies of students of Psychology and their academic performance and employability. A sample of 43 students of Psychology in a Spanish university was used to measure their generic competencies, academic performance and employability. Correlational and regression tests were conducted to evaluate the relation between the variables. The generic competence 'adhering to principles and values' is positively related to employability, while the competencies 'achieve results/client satisfaction' and 'socialise and create networks' are positively related to academic performance. No significant relationship was found between academic performance and employability. Generic competencies favour both academic performance and employability. The competencies which influence only one of these aspects are different. Our research offers insights to teacher learning communities to engage in a profound reflection on the inclusion of methodologies that facilitate the development of competencies related to academic performance and those most in demand in the labour market within the field of Psychology. Generic competencies are essential part of the education of students of Psychology. These competencies are institutionally developed with the aim of orienting the education of psychologists towards their future professional practice. It is essential to understand how the development of generic competencies may facilitate academic performance and employability of graduates in Psychology.

Keywords

Psychology, competencies, development, performance, employability

Introduction

This is an era of profound change, with constant and rapid advances being made in science and technology, neuroscience, digital transformation and artificial intelligence, all leading to ever greater degrees of volatility, uncertainty, complexity and ambiguity (Bodenhausen and Peery, 2009). This scenario is placing new demands on professionals and on educational systems to meet the real needs of society and having a direct impact on the employability of young people and university graduates (Igartua Miro, 2017, Pineda-Herrero et al., 2018; Arranz et al., 2022). The field of psychology is not untouched by these trends and a number of institutions are engaged in the development of plans to adapt the field of psychology to this context (Alonso-Martín, 2010; EFPA, 2021).

The acquisition of generic competencies is a key element in the adaptation of university education to the real-world demands of the profession (García-Álvarez et al., 2022). Competencies reflect the range of behaviours that determine superior performance in a job (Bartram, 2005). Competencies are acquired from multiple elements including, among others, the knowledge, skills, attitudes, personality, motives and values of individuals. However, competencies do not refer to these elements, but to individual behaviours.

Universities must be connected to society and business, and must respond to their needs and demands (Alam et al., 2022; Palmer Pol et al., 2009, Paleari et al., 2015, Nunes et al., 2019, De Dios Alija et al, 2020). According to the World Economic Forum (WEF, 2016), these competencies required are: complex problem solving, critical thinking, creativity, person orientation, coordinating with others, emotional intelligence, judgement and decision-making, service orientation, negotiation and cognitive flexibility. Thus, it is proposed that universities aim to train professionals who are able, among other things, to anticipate trends, be proactive, flexible, creative, entrepreneurial, innovative and responsible in decision-making based on considerations of the common good and sustainable progress and development (De Dios Alija, 2020b).

The interest lies fundamentally in the notion that the development of generic competencies by university students favours both academic learning and their future employability. The former is associated with the consolidation of the European Higher Education Area (EHEA) involving a change in teaching techniques and methodologies and requiring students to acquire a series of generic competencies related to innovation and entrepreneurship, teamwork, analytical and strategic thinking (European Commission, 2020). The latter is based on the demands of employers that university graduates have not only for technical skills but also a set of competencies that allow them to adapt to a professional organisation and their role within it. In fact, generic competencies are one of the principal predictors of future professional performance as well as a basic aspect used by human resources professionals in their recruitment and selection processes (Bartram, 2005; Heinsman et al., 2007).

Considering this context, the aim of our research project is to analyse the degree to which the generic competencies acquired over the course of the degree in psychology program at a Spanish university influence students' academic performance and employability.

Responding to these questions is valuable from two perspectives: firstly, to verify that the study plans established by the university to adapt to the guidelines of the Conference of Rectors of Spanish Universities (CRUE) and the European Commission are effective in facilitating the learning and employability of young people; secondly, to offer specific insight into how to improve these plans. By identifying the specific competencies that facilitate and enhance the learning and employability of Psychology students, the university may take informed decisions on how to modify their programs to develop these generic competencies.

Background

Employability, academic performance and generic competencies

Employability is a complex concept that has been studied and associated with a number of different variables and reviewed within a range of contexts and disciplines (Gamboa Navarro, 2013; Michavila et al., 2018). In general terms, employability is understood as the set of factors which influence and explain the situation of employment, self-employment or unemployment of a person (Suárez Lantarón, 2016). Despite the fact that there have been difficulties with employability definition and concept (e.g., Pegg et al., 2012; Sewell and Dacre Pool, 2010), we define employability as 'a set of skills, knowledge and personal attributes that make an individual more likely to secure and be successful in their chosen occupation to the benefit of themselves, the workforce, the community and the economy' (Moreland, 2006, p. 21).

In any case, employability is a multi-dimensional construct including both the individual aspects of a person and the workplace environment in which they operate (Pineda-Herrero 2018). There has been a great deal of research into this concept, the majority of which regard the person as potentially competent with the knowledge, skills, competencies and attitudes that will allow them not only to find a job but to keep it and advance professionally (McQuaid and Lindsay, 2005; Kohler and Greene, 2004; Gamboa Navarro, 2013). Evidence shows that employability is conditioned by both the education received and the demands of the labour market (Suárez Lantarón, 2016). Other determining factors for employability are the changing demands of the labour market, macroeconomic factors, the availability of jobs and the recruitment processes used to attract and select personnel (Pineda-Herrero et al., 2018).

From an individual perspective employability research has shown how different elements related to individual differences facilitate the employability of graduates. Thus, it has been related to academic performance; job-specific skills, meta-skills or personality traits (Ng et al., 2010; Kaplan et al., 2010; Huang and Lin, 2011).

The academic performance of students in university is also one of the fundamental factors in the evaluation of the quality of learning in Higher Education (Rodríguez et al., 2004; Garbanzo Vargas, 2007; Guzmán, 2012). In this context, research appears to show clearly that good academic performance and work experience during university years greatly enhance employability (Martín-González et al., 2015; Pineda-Herrero, 2018; Padua, 2019). For employers, academic performance is a good predictor of future work performance and is positively regarded in personnel selection (Roth et al., 1996; Rynes, et al., 1997). And, in addition, some evidence suggests its relationship with career success (Judge et al., 1994). Why employers trust in academic performance to predict future work performance? (Chamorro-Premuzic et al., 2010) show that academic performance reflects broader and earlier differences in graduates' personality traits and intellectual ability. As Poropat (2009) found, academic performance is linked to personality traits. And, among all, conscientiousness, was particularly important. In addition Richardson et al. (2012) found that regulating one's effort and self-efficacy was correlated with academic performance.

Consequently, academic performance unveils significant aspects of a candidate's profile, and when there is a lack of work experience, employers may employ it as a practical substitute. Indeed, academic performance accurately mirrors a student's journey, reflecting the average professional aptitude across all subjects within their bachelor's degree. Ultimately, academic performance can be perceived as an indicator of future potential or intellectual capability.

In any case, academic accomplishments alone are no longer adequate for securing employment after university graduation. There is now a demand for universities to produce graduates who possess well-honed and readily identifiable transferable skills, as stated by Dickinson (2000, p. 159).

There is a growing acceptance of the idea that graduates with generic social competencies will be more likely to accomplish, not only academic, but also occupational goals after graduating, particularly when compared to their counterparts who lack such soft skills (Chamorro-Premuzic et al., 2010). So, employers show a greater inclination towards valuing the social skills of employees over their cognitive abilities. They also tend to favour their own competency models as opposed to relying solely on academic recommendations for achieving success (Hogan et al. 2013).

Meta skills are one of the individual resources that facilitate the employability of graduates and research on them is showing increasing interest (Finch et al., 2016). Meta-skills are non-academic, non-job specific and transferable skills that are linked with performance in a range of working environments (Chamorro-Premuzic et al., 2010). Research evidence supports the idea that meta-skills are an important predictor of employability (Finch et al., 2016).

In management literature these meta-skills are often labelled as soft-skills or competencies. For example Finch et al., (2016) – referring to employability literature - define meta-skills as listening,

communication, teamwork, adaptability, social sensitivity, managing relationships, time management, goal-orientation, or task completion; Andrés et al., (2023) from management literature define soft skills as leading and coordinating people, teamwork, planning, conflict management, communication problem solving, information seeking, adaptability, or entrepreneurial and commercial thinking; In addition, also from the field of management, Bartram et al. (2002) and Kurtz & Bartram (2002) developed their model of competencies in which there is a strong overlap with the previous skills. In our work we use the term competencies as it is the term commonly used in human resource management models that are used as a criterion of personnel selection for the incorporation of graduates into organizations (Aguado et al., 2014). Thus, in addition to other resources, the graduates have a set of competencies that facilitate their incorporation into the labour market and their optimum performance in the workplace, and so keeping their jobs and with possibilities for promotion and advancement (Allen and Van der Velden, 2009).

Generic competencies in the context of academic performance and employability status in psychology students

In a context where organisations recognise that the generic competencies of their employees constitute one of the principal assets for competing in a highly demanding market, it is not surprising that they require higher education institutions to foster cross-cutting competencies in their graduates (Palmer Pol et al., 2009). In our sphere, the university has not remained indifferent to this demand, and within the framework of various European conventions concerning convergence in the Tuning Education Structures in Europe project was developed, EHEA, (González & Wagenaar, 2003). This project, among other things, defines a set of cross-cutting competencies that university students must acquire in addition to their technical skills. More recently, various studies have attempted to identify, among these competencies, those that are key for the future that the European Union (EU) must face in the medium term. Building upon these previous efforts, universities have endeavoured to determine which competencies are most sought after by organisations (e.g., Accenture and Universia, 2007; Gómez & Borrás, 2006; González, 2006).

In Spain, the White Book for the Degree in Psychology (Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA), 2005), underscores the need to develop relevant generic competencies, noting that not all subjects must deal with all competencies but that it is necessary to ensure that each competency is addressed in different courses and areas of knowledge within the degree program. These competencies cannot be developed separately but must be integrated into the program and curriculum (Beard et al., 2008) and should be considered in determining learning objectives, activities and the evaluation systems of each subject and program. As noted by the European Federation of Psychologists Association (EFPA, 2021), the core activity of the psychology professional is to design and apply principles of knowledge and ethical and scientific psychological methods to promote the wellbeing, growth and effectiveness of individuals, groups, organisations and society. On this basis, the necessary competencies for the profession can be categorised into two types: (i) those related to the psychological content of professional practice (primary competencies) and (ii) those which permit the professional to provide their services effectively (enabling or facilitating competencies). Primary competencies relate to the areas of goal setting, assessment, development, intervention, evaluation, communication. Enabling competencies involve professional strategy, continuing development, professional relations, research and development, marketing and sales, professional responsibility, leadership, quality assurance and critical self-reflection (EFPA, 2021). Enabling competencies overlap with the generic competencies widely used in the professional field. Of course, there is clearly an overlap between enabling and generic competencies (e.g. Tett et al., 2000).

In fact, as other authors have noted, in addition to technical competencies associated with the methods and techniques proper to field of psychology, professionals must also have generic competencies such as the ability to identify and resolve problems, to search for, process and analyse information from diverse sources, the capacity for abstraction, analysis and synthesis, emotional

intelligence and problem solving, interpersonal skills, the ability to work with international teams and ethical responsibility (Campos-Cornejo & Jaimes Campos, 2007; Ruíz et al., 2008; Charria Ortiz, 2011; Aguado et al., 2017; Lindozzi & De Cuzzi, 2019). Technical competencies refer to specific skills and knowledge related to a particular field of work. These skills are acquired through training, education and work experience, and are essential to perform specific tasks in a job. On the other hand, generic competencies, also known as soft skills or interpersonal skills, are skills that are applied transversally in different work environments and everyday life situations. These skills include effective communication, teamwork, problem solving or adaptability. While technical competencies are necessary to perform specific functions, generic competencies are key to success in any work environment, as they enable effective interaction with colleagues, customers and superiors, as well as the ability to adapt to changes in the work environment. As we mentioned above, our research focuses on the role that generic skills play in employability development.

Different definitions of competencies have been developed since the pioneering works of Boyatzis (1982), McClelland (1987) and Spencer and Spencer (1993). From these approaches, the idea seems to emerge that competencies consist of the collection of skills, knowledge and attitudes, that underpin specific behaviours by people that are expected to contribute positively or negatively to the effectiveness of an organisation (Tett et al., 2000). Although there is no single definition accepted by all authors, two key ideas seem to underpin the proposed approach. The first is the idea of behaviour: personal skills, knowledge and attitudes are put into practice through behaviour. The second is the connection between behaviour and effectiveness when carrying out a job. From the universe of possible competencies, only a subset of them appears to be necessary for superior performance in a particular job and in a specific organisation.

Bartram's approach is developed in this context, proposing a general model known as the great eight competencies. Based on the analysis of a wide range of models from both academia and the practices of organisations, the authors (Bartram et al., 2002; Kurtz & Bartram, 2002) establish a hierarchical model which at the most detailed level establishes 112 components that must be understood as building blocks, which when combined result in competencies. There are 20 middle-level dimensions and eight great competencies appear at the higher level of aggregation. The model has been tested in different pieces of research with satisfactory results (e.g., Bartram et al., 2002; Bartram, 2005; Kurtz et al., 2004). Table 1 displays the competencies from the model as well as providing a short description of them. In contrast with the set of behaviours that are critical for carrying out a specific task, the list of competencies defined in the model is generic. The defined competencies are of (distinctive) value for doing a great number of jobs and so can be classed as transferable: a professional can use these competencies in any job position. Consequently, they are referred to as generic competencies.

Choosing the Bartram great eight model of competencies over other competency models offers several significant advantages. Firstly, this model is grounded in extensive research and has been internationally validated, making it a robust and reliable approach to assessing employee competencies in a global context. Another crucial advantage lies in its simplicity and ease of use. The model comprises eight key competencies, facilitating its comprehension and implementation for both employees and employers. This sets it apart from more complex models that may appear overwhelming or challenging to implement in practice. Additionally, the great eight model closely aligns with current trends in human resource management. In summary, the Bartram great eight model of competencies stands out due to its robustness, applicability, simplicity, and alignment with current market labour needs, making it an outstanding choice for assessing and developing graduates generic competencies.

Table 1: Bartram's 20 Middle-Level Competencies (adapted from Bartram, 2005)

| Great Eight Competencies | | Middle-Level Competencies | Description |
|------------------------------------|---|-----------------------------------|--|
| Leading and Deciding | 1 | Decision and action | Taking decisions and acting decisively and confidently, including in critical situations. Anticipating the consequences of decisions and establishing mechanisms to avoid complications. Accepting responsibility for decisions taken, even if the outcome is not as expected. |
| | 2 | Lead and supervise | Guiding, coordinating and generating confidence and motivation in colleagues. Encouraging others to accept challenges and goals that stimulate their professional development. Identifying colleagues' skills to make the most of their value. |
| Supporting and Cooperating | 3 | Working with people | Adapting effectively to the people you work with to achieve shared objectives. Creating and maintaining team spirit, sharing initiatives, consulting on points of view and understanding different ways of seeing things. Being accessible and listening to the questions of others, offering help, advice, and support when necessary. Understanding the concerns and points of view of the people with which you work. |
| | 4 | Adhering to principles and values | Acting in accordance with rules and social values, complying with good organisational practices. Applauding correct and ethical values and publicly condemning behaviour that does not comply with these values. Promoting equality of opportunities at work. Participating in social activities that contribute to the wellbeing and development of the community. |
| Interpreting and Presenting | 5 | Present and communicate | Explaining or communicating things, setting out relevant and central ideas in an ordered and coherent way. Carefully preparing presentations that define priorities and how they will be explained. Showing confidence and enthusiasm, being able to adapt language, terminology and the level of difficulty of the discourse to the characteristics of the audience. Speaking fluently in public. |
| | 6 | Persuade and influence | Persuading others, including when they firmly hold a different position. Preparing points of view and clearly and precisely setting out their advantages. Identifying the emotions and feelings of interlocutors in order to deal with their objections. Making an impact on audiences with original or unusual actions. |
| | 7 | Socialise / create networks | Creating and maintaining good relations with people from different areas and even different hierarchical levels. Participating in and promoting the development of social activities or events with the aim of developing a good network of relations. Maintaining strong and solid relations with the people who comprise the network of contacts. In the event of a conflict, proposing collaborative actions that resolve disputes that arise among members of the network. Showing a good disposition and sense of humour in relations with the team and with other organisational levels. |
| Analysing and Interpreting | 8 | Write and inform | Writing correctly, clearly and fluently. Writing in an attractive and expressive way to catch the interest of the recipients. Adapting the discourse in accordance with the objective to be achieved and the interlocutors to which the information is directed. Providing information that is opportune and necessary according to the demand of the interlocutors. |
| | 9 | Apply experience/technology | Actively seeking opportunities to learn that allow development as an expert in the field of work. Applying knowledge and using techniques and skills that make it possible to resolve complex |

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|---------------------------------------|----|-------------------------------------|--|
| | | | situations. Sharing knowledge with others and effectively using available technological resources to do the job. |
| | 10 | Analyse | Investigating the causes of problems and adequately analysing information with the objective of understanding them and exploring possible solutions. Reaching accurate and useful conclusions after analysing a situation. Demonstrating and explaining to others the reasons for the analyses and conclusions. |
| Creativity and Conceptualising | 11 | Learn and research | Assimilating new concepts and knowledge flexibly and without difficulties and applying them effectively. Constantly keeping necessary information up to date. Generating an atmosphere of knowledge transfer that contributes to the learning of the people you work with. Quickly finding relationships between topics that seemingly have nothing in common. |
| | 12 | Create and innovate | Generating and proposing creative, useful and valuable ideas to make improvements. Seeking opportunities to propose innovative ideas and new ways of working. Questioning what is established and dedicating time to thinking of new ways of doing things (changing procedures, actions, etc.). Promoting the generation of creative and valuable ideas in the people with which you are connected. |
| | 13 | Formulate strategies | Possessing a broad multidisciplinary knowledge that makes it possible to establish strategic lines of action that guide work. Establishing new instructions about how to do the job and the type of results that should be achieved. Visualising where the market is heading in the areas of work you know. |
| Organising and Executing | 14 | Plan and organise | Establishing in advance the actions and resources needed to achieve the proposed objectives. Defining work priorities and setting objectives. During the implementation of a project, optimising and effectively managing the available resources (people, tools, time, etc.). Reviewing the scheduled plan, making the appropriate corrections when opportune (reassigning resources, modifying deadlines, etc.). |
| | 15 | Achieve results/client satisfaction | Knowing clients' needs and meeting their expectations, creating a good level of satisfaction. Maintaining a high level of sustained effort over time to achieve high productivity levels. Achieving high quality in the results of work. Supervising and monitoring the development of the work to achieve good results. |
| | 16 | Follow instructions and procedures | Working steadily and responsibly, meeting deadlines and following procedures proposed for the job. Monitoring and supervising the development of the work to ensure that the plans and procedures established are followed with care. Complying with the legal requirements and organisational procedures that regulate the execution of the work. Establishing and applying procedures for supervision and follow-up of completed projects. |
| Adapting and Coping | 17 | Respond to change | Valuing and accepting different points of view. Changing ways of acting in new or unclear situations to adapt to the new circumstances. Working effectively with different groups of people. Maintaining a positive and calming attitude in changing situations. |
| | 18 | Handle pressure | Maintaining performance and efficacy in situations of stress, pressure or when faced with obstacles that make it difficult to achieve results. Staying calm and creating effective solutions in tense situations. Maintaining an appropriate balance between work and personal life. Listening to criticisms and reacting positively, correcting or improving where necessary. |
| | 19 | Achieve goals | Achieving the objectives and targets proposed when planning work. Taking responsibility for your own professional |

**Enterprising
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development by actively seeking opportunities for professional fulfilment. Investing energy in achieving what you want, even if achieving it involves a great effort. Working with a high level of energy, enthusiasm and motivation in day-to-day tasks.

20 Entrepreneurial and
Commercial thinking

Analysing the market and the services that the competition offers to propose lines of action. Being alert to changes in the market to detect new opportunities. Taking the profitability of a project (costs/returns) into account when planning and tracking it.

Furthermore, it is clear that the acquisition of knowledge does not, in itself, guarantee the development of professional competencies, especially if information is transmitted through isolated, unconnected and uncoordinated disciplines lacking any interconnection or dialogue which may improve professional performance (Campero, 2008). In 2007, the United Nations (UN) suggested that promoting the acquisition of generic competencies on the part of university students serves to lay the foundation for the generation of sustainable value for society as a whole (Rieckmann, 2022). Thus, society requires universities to adapt to their environment and provide education which meets the social and economic needs and demands of the labour market (Castejón et al., 2008). University curricula should be oriented towards developing the professional profile of each study program (Amador, 1996) and generic competencies can play a fundamental role. Within the field of psychology, a number of studies have identified how these generic competencies can be taught (Aguado et al., 2011).

The university where the present study was conducted is a private university located in the community of Madrid that hosts 12,000 undergraduate students per year. Its educational project integrates into the official curricula a series of interventions aimed at developing generic competencies throughout the academic years. Specifically, in the psychology degree, among these activities, of particular note are three academic trips: the *Camino de Santiago* in the first academic year; Vienna in the third academic year; and Israel in the fourth academic year. Additionally, in the second academic year students conduct social interventions with vulnerable collectives. There is also a mentoring program over the course of their studies and a specific course Personal Skills and Competencies (PSC) in the first year of the degree program. Students also have the opportunity to participate in a complementary training program on research and innovation in psychology with 750 training hours from their second academic year. These programmes develop generic competencies relating to leadership, cooperation, communication, learning, and adaptation.

However, despite the importance given to generic competencies on paper, to our knowledge there has been no research in the area of Psychology which explores the role of generic competencies in learning outcomes and academic performance or their influence on students' future employability. Furthermore, there is little scientific evidence of the relation between academic performance with generic competencies identified in EU directives for the introduction of sustainability into the curriculum (CRUE, 2012), or in the Europsy certificates issued by the European Federation of Psychologists Association (EFPA, 2021). It is important to explore these relations given their importance to the future of jobs, employment, skill and workforce strategy for the fourth industrial revolution (WEF, 2016), and/or the European skills agenda for sustainable competitiveness, social fairness and resilience (European Commission, 2020)

In alignment with the aforementioned, the aim of our study is to explore the extent to which various generic competencies facilitate both improved academic performance and enhanced employability prospects for Psychology students. To this end, we pose the following research questions:

RQ1: Are the generic competencies of psychology students related to their academic performance? If so, which competencies contribute to achieving better academic outcomes?

RQ2: Are the generic competencies of psychology students related to their employability? If so, which competencies contribute to greater employability?

Method

Participants

A total of 43 students of psychology at a Spanish university participated in the study, of whom 39 were women (90.7%) and four were men (9.3%). The average age of the participants at the moment of the first evaluation was 22.30 (DT=1.71), with a minimum age of 21 and a maximum of 28. Of the 43 participants, 46.5% (n=20) were employed when the employability survey was conducted. Participants were recruited using nonprobability convenience sampling. The project was approved by the Research Ethics Committee of Universidad Francisco de Vitoria (UFV) where the study took place.

Measurements

Generic Competencies

Generic competencies were evaluated using the great eight competency model (Bartram, 2005). The model identifies eight broad areas from which are derived 20 generic competencies widely used in the professional field related to employability. Generic competencies were evaluated using the behavioural evidence scale from the Prisma4D Questionnaire (*Instituto de Ingeniería del Conocimiento*, 2015). The questionnaire assesses 20 generic competencies defined in the great eight competency model (Bartram, 2005). The behavioural evidence scale, measures each of the 20 competencies through a set of items that express specific behaviours relating to the competencies. Participants answered using a scale of 1-4 points (1 = 'I find it very difficult'; 2 = 'I am skilled but I do not stand out', 3 = 'I am skilled', and 4 = 'I am an expert'). Two examples of items used in the leading and supervising competency are: 'to encourage others to take on challenges and goals that stimulate their professional development' and 'to identify the skills of the people I work with to make the most of their abilities.' Studies carried out using the questionnaire display adequate reliability, with alpha values greater than .70 for the measurement of all of the competencies.

Employability

Employability was evaluated using a survey by the University Employment Observatory (Employment Observatory Francisco de Vitoria University, 2021). Specifically, the time which the student took to find employment related to psychology studies was used to determine the degree of employability of the participants in a four-point ordinal scale: (1) after one year of graduation, (2) from 0 to 3 months after graduation, (3) through work placements, and (4) during their studies.

Academic performance

Academic performance was evaluated using the average final mark of the student in all the courses of the psychology degree. The mean grade can have continuous values from 0 to 10.

Procedure and Design

The Prisma 4D test was conducted online with a secure connection using the assessment management system of the Instituto de Ingeniería del Conocimiento. Participants took the test in the IT room of the university under the supervision of members of the research team. The test was conducted at the end of the second semester of the fourth year (the final year) of the degree program. To compliment the questionnaire, each participant was assigned a code comprising three easily remembered letters: the first vowel of the participant's favourite colour, the first letter of his or her surname, and the first letter of his or her father's given name. The employability survey was conducted by telephone two years after completion of university studies by the University Employment Observatory. When participants took the survey, the first thing they were asked for was the previously assigned code. In this way, the data could be linked while ensuring the participants' anonymity. Participation was

voluntary and no financial incentives were offered. All participants signed a consent form which informed them of the objectives of the study, the voluntary nature of the study and the confidentiality of the data.

A longitudinal design was used. In the 2018–19 academic year, Prisma 4D was applied to 71 students from the psychology degree when they completed the fourth year and a mean mark for the degree was obtained. A year and a half later (January 2021), the Employment Observatory carried out the employability survey, with the participation of 48 graduates. Of these, five were eliminated as their identifying codes did not match, giving a total sample of 43 students.

Data Analysis

Prior to exploring our research questions, a correlation test was performed to describe the relation between the variables in the study. Subsequently, to analyse our research questions two stepwise multiple linear regression tests were performed. We verify the assumed independence, homoscedasticity, normality, linearity and non-collinearity. The data was analysed using the IBM SPSS Statistics v25.0.

Results

Table 2 provides the measurements, standard deviations and correlations between the variables of the study. The effect size on the estimate of a population proportion was .45, for a 95% confidence level and $p = 0.5$. The results show no significant correlation between employability and academic performance ($r = .15, p > .05$). Significant positive correlations to employability were found with the competencies 'adhering to principles and values' ($r = .55, p < .01$) and 'respond to change' ($r = .53, p < .05$). Significant positive correlations were found between academic performance and the competencies 'write and inform' ($r = .33, p < .05$), 'plan and organise' ($r = .35, p < .05$), 'achieve results/client satisfaction' ($r = .51, p < .01$) and 'follow instructions and procedures' ($r = .34, p < .01$). Thus, the competencies most closely related to employability are not those which enhance academic performance.

Table 2. Measurements, descriptive statistics and inter-correlations

| | <i>M</i> | <i>SD</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|--|----------|-----------|-------|-------|------------------|------------------|------------------|-----|------------------|-------|------------------|------------------|------------------|------------------|-------|------------------|-------|------------------|------------------|-------|------------------|-------------------|-----|
| 1 Employability | 2.0 | .79 | | | | | | | | | | | | | | | | | | | | | |
| 2 Academic Performance | 7.3 | .69 | .15 | | | | | | | | | | | | | | | | | | | | |
| 3 Decision and action | 2.8 | .49 | .21 | .08 | | | | | | | | | | | | | | | | | | | |
| 4 Lead and supervise | 2.9 | 55.85 | .31 | -.01 | .42** | | | | | | | | | | | | | | | | | | |
| 5 Working with people | 3.0 | 52.11 | .39 | -.01 | .32** | .59 ³ | | | | | | | | | | | | | | | | | |
| 6 Adhering to principles and values | 2.9 | 47.87 | .66** | -.06 | .06 | .35* | .51 ³ | | | | | | | | | | | | | | | | |
| 7 Present/communicate | 2.5 | 77.31 | -.27 | .06 | .43** | .30* | .21 | .06 | | | | | | | | | | | | | | | |
| 8 Persuade and influence | 2.4 | 63.92 | -.05 | -.09 | .52 ³ | .44** | .41** | .10 | .58 ³ | | | | | | | | | | | | | | |
| 9 Socialise/ networks | 2.9 | 48.28 | .02 | -.08 | .46** | .38* | .32* | .09 | .44** | .54* | | | | | | | | | | | | | |
| 10 Write and inform | 2.7 | 65.74 | -.17 | .33* | .30* | .05 | .13 | .03 | .34* | .30 | .39** | | | | | | | | | | | | |
| 11 Apply experience/technology | 2.8 | 51.58 | .06 | .28 | .42** | .32* | .31* | .21 | .19 | .18 | .42** | .59 ³ | | | | | | | | | | | |
| 12 Analyse | 3.0 | 41.53 | .24 | .28 | .52 ³ | .45** | .36* | .13 | .21 | .46** | .56 ³ | .43** | .56 ³ | | | | | | | | | | |
| 13 Learn and research | 2.7 | 52.35 | .023 | .24 | .32* | .62 ³ | .44** | .00 | .28 | .32* | .26 | .31* | .33* | .48** | | | | | | | | | |
| 14 Create and innovate | 2.5 | 71.04 | -.09 | -.03 | .30 | .54 ³ | .29 | .12 | .16 | .45** | .37* | .17 | .26 | .25 | .42** | | | | | | | | |
| 15 Formulate strategies | 2.6 | 45.11 | .15 | -.22 | .24 | .41** | .27 | .24 | .24 | .25 | .39** | .25 | .28 | .29 | .36* | .38* | | | | | | | |
| 16 Plan and organise | 2.9 | 53.73 | .18 | .35* | .20 | .23 | .26 | .08 | .09 | .05 | .29 | .34** | .33* | .35* | .36* | .27 | .21 | | | | | | |
| 17 Achieve results/client satisfaction | 2.8 | 58.63 | .10 | .51** | .40** | .28 | .46** | .07 | .42** | .40** | .40** | .46** | .53 ³ | .53 ³ | .45** | .26 | .19 | .57 ³ | | | | | |
| 18 Follow instruction procedures | 2.8 | 64.44 | .28 | .34* | .18 | .22 | .29 | .03 | .16 | .15 | .36* | .26 | .22 | .37* | .35* | .12 | .32* | .66 ³ | .51 ³ | | | | |
| 19 Respond to change | 2.7 | 64.44 | .53* | -.22 | .16 | .35* | .41** | .15 | .07 | .21 | .33* | .13 | .27 | .26 | .22 | .38* | .36* | .07 | .21 | .02 | | | |
| 20 Handle pressure | 2.8 | 55.33 | .26 | .12 | .42* | .36* | .49 ³ | .01 | .11 | .42** | .49** | .26 | .34* | .44** | .35* | .51 ³ | .41** | .33* | .59 ³ | .40** | .49 ³ | | |
| 21 Achieve goals | 3.1 | 49.80 | .31 | .29 | .39** | .28 | .39** | .12 | .20 | .30* | .33* | .19 | .33* | .31* | .34* | .30* | .07 | .40** | .60 ³ | .38* | .19 | .58 ³ | |
| 22 Entrepreneurial and commercial thinking | 2.3 | 62.52 | -.24 | .016 | .36* | .32* | .25 | .19 | .37* | .45** | .24 | .13 | .17 | .35* | .40** | .30* | .28 | .09 | .38* | .23 | .27 | .35* ¹ | .16 |

* $p < .05$; ** $p < .01$; ³ $p < .002$ (Bonferroni correction)

Table 3 shows the results of the regression test for academic performance and employability. As the table shows, in the case of employability the model explains 42% of the variance ($F=13.13$, $p<.01$). The model only retain 'adhering to principles and values' ($\beta=.65$, $t=3.62$, $p<.01$) while all other facets were excluded. In the case of academic performance, the model explains 30% of the variance ($F=8.72$, $p<.01$). The model retain 'achieve results and client satisfaction' ($\beta=.58$, $t=4.11$, $p<.01$) and 'socialise and create networks' ($\beta=-.30$, $t=-2.13$, $p<.05$).

Table 3. Results of the regression test for employability and academic performance

| | <i>Beta</i> | <i>F</i> | <i>R</i> ² |
|--|-------------|----------|-----------------------|
| Dependent Variable: Employability | | 13.13** | .42 |
| Adhering to principles and values | .65* | | |
| Dependent Variable: Academic performance | | 8.72** | .30 |
| Achieve results and client satisfaction | .58** | | |
| Socialising and creating networks | -.30* | | |

* $p<.05$; ** $p<.01$

Discussion

The results of this study show the relation between specific generic competencies and academic performance and employability of students in the degree in psychology of a Spanish university. Specifically, the data appears to indicate that employability is influenced by student competence in 'adhering to principles and values.' This competence involves the capacity to actively participate and collaborate in work teams and to subordinate personal interests to those of the team and to act in accordance with accepted social norms and values, complying with the best practices of the organisation. The findings suggest that students who develop this competence during the course of their studies for the degree in psychology tend to find employment more quickly. Additionally, academic performance is influenced by the specific competencies 'achieve results' and 'socialise and create networks.' The former implies the ability to define priorities, establish objectives, organise and revise planning making adjustments and correction where necessary; the latter indicates the ability to explain relevant ideas effectively in an ordered and coherent manner as well as to promote activities of a social nature to establish a solid network of contacts and resolving possible conflicts. Ultimately, it would appear that competencies oriented towards achieving results and establishing relationships with others favours academic performance.

One important aspect indicated by the results is that academic performance and employability are favoured by different competencies. Thus, university programs to develop competencies should take into account that students require different competencies to be successful in different aspects of their academic and professional career. In addition, the differential importance of competencies should lead legislators to reflect on the normative requirements established in relation to the development of competencies in psychology degrees.

This is a complex issue due to the wide range of professional opportunities available to graduates in psychology. Beyond the clinical field, psychology graduates can work professionally in fields as different as sports, human resources management, management and organisational psychology, social intervention, educational intervention or marketing, among others. These fields require different generic competencies to be performed successfully. In future studies it would be necessary to investigate whether there are specific competencies to be developed depending on the graduate's professional career.

Furthermore, the results of the study suggest that there is no significant relation between academic performance and employability. Research clearly shows that, for a broad range of professions and levels of professional experience, prior academic performance is a good predictor of professional performance (García-Jiménez et al., 2000). However, our data shows that this does not appear to be the case in the professional field of psychology. This aspect is certainly worthy of further study. An initial explanation for this matter relates to the fact that our study does not measure professional performance but rather the speed with which students access employment. And speed in accessing employment can depend on many other factors (such as, for example, the selection process carried out or the social network of the candidate that facilitates access to employment), which differ from the prediction employers make about a candidate's future professional performance.

Finally, the information provided by this study is useful in orienting the degree in psychology towards employability, including new learning experiences that facilitate the acquisition of the competencies required by the current labour market. Teacher learning communities should engage in a profound reflection (Hadar et al., 2020, De Dios Alija, 2020a) on the inclusion of active learning methodologies that further the interconnection of competencies related to academic performance (i.e. 'achieve results/client satisfaction' and 'socialise and create networks') and those in demand for employment (i.e. 'adhering to principles and values'). All of this may contribute to the acquisition of those competencies currently in demand in the labour market (CRUE, 2012, European Commission, 2020; WEF, 2020), especially those which enable psychologists to anticipate change and to be proactive in a society in constant transformation.

Conclusion

This study sheds light on the intricate relationship between specific generic competencies, academic performance, and employability among students pursuing a degree in psychology at a Spanish university. Notably, it highlights the vital role of the 'adhering to principles and values' competency in influencing employability, emphasising the importance of teamwork, aligning personal interests with organisational values, and adhering to societal norms. Moreover, the study reveals that academic performance is positively impacted by competencies related to 'achieving results' and 'socialising and creating networks.' The former underscores the significance of goal-setting and effective planning, while the latter emphasises the ability to articulate ideas coherently and cultivate a robust professional network.

References

- Accenture & Universia. (2007). Las competencias profesionales en los titulados. Contraste y diálogo universidad y empresa [Professional competencies of graduates. Contrast and dialogue between universities and companies]. Centro de Alto Rendimiento de Accenture y Universia.
<https://imagenes.universia.net/files/NET/con1.pdf>
- Agencia Nacional de Evaluación de la Calidad y Acreditación (2005). *Libro Blanco. Estudios de Grado de Psicología* [White book: Psychology degree programmes] ANECA.
https://www.aneca.es/documents/20123/63950/libroblanco_psicologia_def.pdf/41c6627e-9c61-25d4-0b5a-5cedb4fae9dc?t=1654601757042
- Aguado, D., González, A., Antúnez, M., & De Dios Alija, T. (2017). Evaluación de Competencias Transversales en Universitarios. Propiedades Psicométricas Iniciales del Cuestionario de Competencias Transversales [Evaluation of transversal competencies in university students: Initial psychometric properties of the Transversal Competencies Questionnaire] *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 15(2), 129-152.
<https://doi.org/10.15366/reice2017.15.2.007>

- Aguado, D., Arranz, V., Valera-Rubio, A., & Marín-Torres, S. (2011). Evaluación de un programa blended-learning para el desarrollo de la competencia trabajar en equipo [Evaluation of a blended-learning programme to develop the team-work competence] *Psicothema*, 23(3), 356-361. <https://www.psicothema.com/pdf/3894.pdf>
- Aguado, D., Rico, R., Sánchez-Manzanares, M., & Salas, E. (2014). Teamwork Competency Test (TWCT): A step forward on measuring teamwork competencies. *Group Dynamics: Theory, Research, and Practice*, 18(2), 101-121. <https://doi.org/10.1037/a0036098>
- Alam, M. J., Ogawa, K., & Islam, S. R. B. (2022). Importance of skills development for ensuring graduates employability: The case of Bangladesh. *Social Sciences*, 11(8), 360. <https://doi.org/10.3390/socsci11080360>
- Allen, J., & Van der Velden, R. (2009). *Competencies and Early Labour Market Careers of Higher Education Graduates*. European Union. ROA External Reports. <https://cris.maastrichtuniversity.nl/ws/portalfiles/portal/1330379/guid-0a300445-8ff9-4f72-8908-1272ba7a703a-ASSET1.0.pdf>
- Alonso-Martín, P. (2010). La valoración de la importancia de las competencias transversales: comparación de su percepción al inicio y final de curso en alumnos de psicología [Evaluating the importance of transversal competencies: A comparison of their perception at the start and end of the year in psychology students] *Revista de Investigación Educativa*, 28(1), 119-140. <https://revistas.um.es/rie/article/view/97821>
- Amador, F. (1996). *Análisis de la formación universitaria en las Ciencias del Deporte. Su adecuación a los perfiles profesionales* [Analysis of university training in sports sciences: Its adaptation to professional profiles]. <http://www.iusport.es/OPINIO/amador98>
- Andrés, J. C., Aguado, D., & García-Izquierdo, A. L. (2023). Big Four LinkedIn Dimensions: Signals of Soft Skills?. *Journal of Work and Organizational Psychology*, 39(2), 75-88. <https://doi.org/10.5093/jwop2023a9>
- Arranz, N., Arroyabe, M. F., Sena, V., Arranz, C. F., & Fernandez de Arroyabe, J. C. (2022). University-enterprise cooperation for the employability of higher education graduates: a social capital approach. *Studies in Higher Education*, 47(5), 990-999. <https://doi.org/10.1080/03075079.2022.2055323>
- Bartram, D. (2005). The Great Eight Competencies: A criterion-centric approach to validation. *Journal of Applied Psychology*, 90(6), 1185-1203. <https://doi.org/10.1037/0021-9010.90.6.1185>
- Bartram, D., Robertson, I. T., & Callinan, M. (2002). Introduction: A framework for examining organizational effectiveness. In I. T. Robertson, M. Callinan, & D. Bartram (Eds.). *Organizational effectiveness: The role of psychology* (pp 1–10). Wiley. <https://doi.org/10.1002/9780470696736.ch>
- Beard, D., Schwieger, D., & Surendran, K. (2008). Integrating Soft Skills Assessment through University, College, and Programmatic Efforts at an AACSB Accredited Institution. *Journal of Information Systems Education*, 19(2), 229-240. <https://jise.org/volume19/n2/JISEv19n2p229.html>
- Bodenhausen, G. V., & Peery, D. (2009). Social Categorization and Stereotyping in vivo: The VUCA Challenge. *Social and Personality Psychology Compass* 3(2), 133-151. <https://doi.org/10.1111/j.1751-9004.2009.00167.x>
- Boyatzis, R. (1982). *The competent manager: A model for effective performance*. Wiley
- Campero, M. (2008). La evaluación por competencias, mitos, peligros y desafíos [Evaluation by competencies, myths, dangers and challenges]. *Educere*, 43, 805-814.
- Campos Cornejo, L. L., & Jaimés Campos, M.A. (2007) Perfil de competencias profesionales del psicólogo [Professional competencies profile of psychologists] *Integración académica en Psicología*, 10(28) <https://integracion-academica.org/anteriores/12-volumen-2-numero-4-2014/44-perfil-de-competencias-profesionales-del-psicologo>
- Canadian Council of Chief Executives (2014). *Preliminary survey report: The skill needs of major Canadian employers*. <https://thebusinesscouncil.ca/app/uploads/2014/01/Preliminary-survey-report.-The-skill-needs-of-major-Canadian-employers-January-2014.pdf>
- Castejón, J.L., Cantero, P., & Pérez, N. (2008) Diferencias en el perfil de competencias socio-emocionales en estudiantes universitarios de diferentes ámbitos científicos [Differences in the socio-emotional competencies profile in university students from different academic fields] *Revista Electrónica de Investigación Psicoeducativa*, 6(15), 339-362. <https://doi.org/10.25115/ejrep.v6i15.1290>

- Chamorro-Premuzic, T., Arteche, A., Bremner, A. J., Greven, C. & Furnham, A. (2010). Soft skills in higher education: importance and improvement ratings as a function of individual differences and academic performance. *Educational Psychology, 30*(2), 221-241. <https://www.tandfonline.com/doi/full/10.1080/01443410903560278>
- Charria Ortiz, V. H., Sarsosa Prowesk, K.V., Uribe Rodríguez, A.F., López Lesmes, C.N., & Arenas Ortiz, F. (2011) Definición y clasificación teórica de las competencias académicas, profesionales y laborales. Las competencias del psicólogo en Colombia [Definition and theoretical classification of academic, professional and workplace competencies: The competencies of psychologists in Colombia] *Psicología desde el Caribe, 28*, 133-165. <https://www.redalyc.org/pdf/213/21320758007.pdf>
- Conference of Rectors of Spanish Universities (2012). *Directrices para la introducción de la Sostenibilidad en el Curriculum* [Directives for introducing Sustainability to the Curriculum] https://www.crue.org/wp-content/uploads/2020/02/Directrices_Sostenibilidad_Crue2012.pdf
- De Dios Alija, T. (2020a). Transformación de un modelo educativo a través de la formación y las comunidades docentes de aprendizaje [Transforming an educational model through training and teaching learning communities] *Revista interuniversitaria de formación del profesorado (RIFOP), 34*(2), 61-78. <https://doi.org/10.47553/rifop.v34i2.77131>
- De Dios Alija, T. (2020b). *Dirección de personas y gestión de talento en organizaciones sostenibles* [Managing people and talent in sustainable organisations]. MacGraw Hill.
- De Dios Alija, T., Aguado, D. & Rodríguez, S. (2020). Autoevaluación y desarrollo de competencias transversales para la empleabilidad en universitarios [Self-evaluation and development of transversal competencies for employability in university students]. *Indivisa. Boletín de Estudio e investigación, 20*, 24-24. <https://doi.org/10.37382/indivisa.vi20.76>
- Dickinson, M. (2000). Giving undergraduates managerial experience. *Education + Training, 42*(3), 159-170. <https://doi.org/10.1108/00400910010372652>
- Employment Observatory UFV (2021) *Informe ejecutivo del barómetro de empleabilidad* [Executive report for the employability barometer]. <https://www.ufv.es/wp-content/uploads/2022/12/1819-ufv-grado-informe-barometro-de-empleabilidad-18-meses.pdf>
- European Commission (2020). *European skills agenda for sustainable competitiveness, social fairness and resilience*. <https://ec.europa.eu/social/main.jsp?langId=es&catId=89&newsId=9723>
- European Federation of Psychologists' Association (2021) Certificados EuroPsy. <http://www.europsy.cop.es/>
- Finch, D. J., Peacock, M., Levallet, N., & Foster, W. (2016). A dynamic capabilities view of employability: Exploring the drivers of competitive advantage for university graduates. *Education+ Training, 58*(1), 61-81. <https://doi.org/10.1108/ET-02-2015-0013>
- Gamboa Navarro, J. P. (2013). La empleabilidad de los jóvenes como facilitadora de la obtención de empleos de calidad (Tesis doctoral). *Universidad de Valencia*. <https://core.ac.uk/download/pdf/71023189.pdf>
- Garbanzo Vargas, G. M. (2007). Factores asociados al rendimiento académico en estudiantes universitarios, una reflexión desde la calidad de la Educación Superior pública [Factors associated with academic performance in university students: A reflection on quality in public higher education] *Educación 31*(1), 43-63. <https://www.redalyc.org/pdf/440/44031103.pdf>
- García-Álvarez, J., Vázquez-Rodríguez, A., Quiroga-Carrillo, A., & Priegue Caamaño, D. (2022). Transversal competencies for employability in university graduates: A systematic review from the employers' perspective. *Education Sciences, 12*(3), 204. <https://doi.org/10.3390/educsci12030204>
- García-Jiménez, M. V., Alvarado Izquierdo, J. M., & Jiménez Blanco, A. (2000). La predicción del rendimiento académico: regresión lineal versus regresión logística [Predicting academic performance: Linear regression versus logistic regression]. *Psicothema, 12*(2), 248-525. <https://www.psicothema.com/pdf/558.pdf>
- Gómez, J. M. & Borrás, F. (2006). *Competencias profesionales en los titulados UMH [Professional competencies in UMH graduates]*. Universidad Miguel Hernández. <https://observatorio.umh.es/files/2011/06/2006-competencias-titulados-umh.pdf>
- González, M. (2006). Currículo basado en competencias: una experiencia en Educación universitaria. *Educación y Educadores, 9*(2), 95-117. <https://www.redalyc.org/pdf/834/83490209.pdf>
- González, J. & Wagenaar, R. (2003). *Tuning educational structures in Europe II*. Universidad de Deusto & Universidad de Groningen. <http://www.deusto-publicaciones.es/deusto/pdfs/tuning/tuning04.pdf>

- Guzmán, M. (2012). *Modelos predictivos y explicativos del rendimiento académico universitario: caso de una institución privada en México* (Tesis doctoral). [Predictive and explanatory models for university students' academic performance: The case of a private institution in Mexico] Univ. Complutense de Madrid. <https://hdl.handle.net/20.500.14352/48112>
- Hadar, L. L., Ergas, O., Alpert, B., & Ariav, T. (2020). Rethinking teacher education in a VUCA world: student teachers' social-emotional competencies during the Covid-19 crisis. *European Journal of Teacher Education*, 43(4), 573-586. <https://doi.org/10.1080/02619768.2020.1807513>
- Heinsman, H., De Hoogh, A. H., Koopman, P. L., & Van Muijen, J. J. (2007). Competencies through the eyes of psychologists: A closer look at assessing competencies. *International Journal of Selection and Assessment*, 4, 412-427. <https://doi.org/10.1111/j.1468-2389.2007.00400.x>
- Hogan, R., Chamorro-Premuzic, T. & Kaiser, R.B. (2013). Employability and career success: bridging the gap between theory and reality. *Industrial and Organizational Psychology*, 6(1), 3-16. <https://doi.org/10.1111/iops.12001>
- Huang, Y. & Lin, C. (2011). Management trainee core competencies in the hospitality industry: differences between managers and scholars. *Journal of Human Resources in Hospitality and Tourism*, 1(10), 1-13. <https://doi.org/10.1080/15332845.2010.500166>
- Igartua Miró, M. T. (2017). *La formación dual en el sistema educativo: balance y propuestas de mejora*. [Dual training in the educational system: balance and proposals for improvement]. *Temas laborales: Revista andaluza de trabajo y bienestar social*, 137, 91-125. <https://hdl.handle.net/11441/87380>
- Instituto de Ingeniería del Conocimiento, (2015). Perfil Competencial complete: Prisma 4D. <https://www.iic.uam.es/soluciones/recursos-humanos/evaluacion-por-perfiles-profesionales/>
- Judge, T.A., Cable, D.M., Boudreau, J.W. & Bretz, R.D. Jr (1994). *An empirical investigation of the predictors of executive career success*. Working Paper Series, Working paper #94-08. Centre for Advanced Human Resource Studies, Cornell University. <https://hdl.handle.net/1813/77095>
- Kaplan, M.D., Piskin, B. & Bol, B. (2010). Educational blogging: Integrating technology into marketing experience. *Journal of Marketing Education*, 32(1), 50-63. <https://doi.org/10.1177/0273475309335652>
- Kohler, P.D. & Greene, G. (2004). Strategies for integrating transition-related competencies into teacher education. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 27(2), 146-162. <https://doi.org/10.1177/088840640402700206>
- Lindozi, M., & De Cuzzi, M. (2019). Autopercepción de empleabilidad y competencias socio-emocionales en jóvenes graduados en Psicología [Self-perception of employability and socio-emotional competencies in young psychology graduates] *Ciencias Sociales*, 12(1). <http://hdl.handle.net/2133/17649>
- Martín-González, M., Ondé, D., & Pérez-Esparrells, C. (2015). El impacto de las competencias en la empleabilidad de los titulados universitarios de las universidades valencianas. *Investigaciones de Economía de la Educación*, 10, 687-708. https://www.researchgate.net/profile/Carmen-Perez-Esparrells/publication/297696783_El_impacto_de_las_competencias_en_la_empleabilidad_de_los_titulados_universitarios_de_las_universidades_valencianas/links/5836aa1708ae503ddb5493a/El-impacto-de-las-competencias-en-la-empleabilidad-de-los-titulados-universitarios-de-las-universidades-valencianas.pdf
- McClelland, D. C. (1987). *Human Motivation*. Cambridge University Press.
- McQuaid, R.W. & Lindsay, C. (2005). El concepto de empleabilidad. [The concept of employability]. *Estudios urbanos*, 42(2), 197-219. https://www.academia.edu/263270/McQuaid_R_W_and_Lindsay_C_2005_The_concept_of_employability_Urban_Studies_Vol_42_No_2_pp_197_219
- Michavila, F., Martínez, J. M., Martín-González, M., García-Peñalvo, F. J., & Cruz-Benito, J. (2018). Empleabilidad de los titulados universitarios en España. Proyecto OEEU. [Employability of University Graduates in Spain: OEEU Project]. *Education in the Knowledge Society*, 19(1), 21-39. <https://doi.org/10.14201/eks20181912139>
- Moreland, N. (2006). *Entrepreneurship and Higher Education: An Employability Perspective*. Learning and Employability, Series 1. The Higher Education Academy. <http://hdl.voced.edu.au/10707/185826>
- Ng, E., Schweitzer, L. & Lyons, S. (2010). New generation, great expectations: a field study of the millennial generation. *Journal of Business and Psychology*, 25, 281-292. <https://doi.org/10.1007/s10869-010-9159-4>

- Nunes, B.T., Pollard, S.J.T., Burgess, P.J., Ellis, G., De los Rios, I.C., & Charnley, F. (2018). University Contributions to the Circular Economy: Professing the Hidden Curriculum. *Sustainability*, 10(8). <https://doi.org/10.3390/su10082719>
- Padua, L.M. (2019). Factores individuales y familiares asociados al bajo rendimiento académico en estudiantes universitarios [Individual and family factors associated with low academic performance in university students]. *Rev Mex Invest Educativa* 24(80), 173-195. <https://www.scielo.org.mx/pdf/rmie/v24n80/1405-6666-rmie-24-80-173.pdf>
- Paleari, S., Donina, D., & Meoli, M. (2015). The role of the university in twenty-first century European society. *Journal of Technology Transfer*, 40(3), 369-379. <https://doi.org/10.1007/s10961-014-9348-9>
- Palmer Pol, A., Montañó Moreno, J.J., & Palou Oliver, M. (2009). Las competencias genéricas en la educación superior. Estudio comparativo entre la opinión de empleadores y académicos [Generic competencies in higher education: A comparative study of the views of employers and academics]. *Psicothema* 21(3), 433-438. <https://www.redalyc.org/pdf/727/72711821015.pdf>
- Pegg A., Waldox, J., Hendy-Isaac, S., & Lawton, R. (2012). Pedagogy for employability. Higher Education Academy. https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/hea/private/pedagogy_for_employability_update_2012_1568036839.pdf
- Pineda-Herrero, P., Ciraso-Cali, A., & Armijos-Yambay, M. (2018). Competencias para la empleabilidad de los titulados en Pedagogía, Psicología y Psicopedagogía: un estudio comparativo entre empleadores y titulados [Competencies for employability of pedagogy, psychology and psychopedagogy graduates: A comparative study of employers and graduates] *Revista Española de Pedagogía*, 76, 270. <https://reunir.unir.net/handle/123456789/8265>
- Poropat, A.E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135(2), 322-338. <https://doi.org/10.1037/a0014996>
- Richardson, M., Abraham, C. & Bond, R. (2012). Psychological correlates of university students' academic performance: a systematic review and meta-analysis. *Psychological Bulletin*, 138(2), 353-387. <https://doi.org/10.1037/a0026838>
- Rieckmann, M. (2022). La formación de competencias clave para el desarrollo sustentable en la educación superior. https://diposit.ub.edu/dspace/bitstream/2445/186433/1/ODS_Rieckmann.pdf
- Rynes, S. L., Orilitzky, M. O., & Bretz Jr, R. D. (1997). Experienced hiring versus college recruiting: Practices and emerging trends. *Personnel Psychology*, 50(2), 309-339. <https://doi.org/10.1111/j.1744-6570.1997.tb00910.x>
- Rodríguez, S., Fita E., & Torrado, M. (2004). El rendimiento académico en la transición secundaria-universidad [Academic performance in the secondary education–university transition] *Revista de Educación*, 334(22), 391-414. <https://www.educacionyfp.gob.es/dam/jcr:f64ea840-76aa-4cb9-bf1f-78ebb79f8fce/re33422-pdf.pdf>
- Roth, P. L., BeVier, C. A., Switzer III, F. S., & Schippmann, J. S. (1996). Meta-analyzing the relationship between grades and job performance. *Journal of Applied Psychology*, 81(5), 548-556. https://houdekpetr.cz/%21data/public_html/papers/Roth%20et%20al%201996.pdf
- Ruíz, M., Jaraba, B., & Romero L. (2008). La formación en psicología y las nuevas exigencias del mundo laboral: Competencias laborales exigidas a los psicólogos [Psychology training and the new demands of the world of work] *Psicología desde el Caribe*, 21, 136-157. <https://rcientificas.uninorte.edu.co/index.php/psicologia/article/view/1645/1075>
- Sewell, P., & Dacre-Pool, L. (2010). Moving from conceptual ambiguity to operational clarity: Employability, enterprise and entrepreneurship in higher education. *Education + Training*, 52(1), 89-94. <https://doi.org/10.1108/00400911011017708>
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. Wiley.
- Suárez Lantarón, B. (2016). Empleabilidad: Análisis del concepto [Employability: Conceptual Analysis] *Revista de Investigación en educación*, 14(1), 67-84. https://www.researchgate.net/publication/303686234_Empleabilidad_analisis_del_concepto
- Tett, R. P., Guterman, H. A., Bleier, A., & Murphy, P. J. (2000). Development and content validation of a "hyperdimensional" taxonomy of managerial competence. *Human performance*, 13(3), 205-251. https://doi.org/10.1207/S15327043HUP1303_1
- World Economic Forum (2016, January 18) *The future of jobs. employment, skill and workforce strategy for the fourth industrial revolution*. <https://reports.weforum.org/future-of-jobs-2016/>