# JOB SKILLS AND EMPLOYABILITY IN HIGHER EDUCATION

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# Abstract

A documentary review was carried out on the production and publication of research papers related to the study of the variables Labor Competencies and Employability in Education. The purpose of the bibliometric analysis proposed in this document was to know the main characteristics of the volume of publications registered in the Scopus database during the period 2018-2022, achieving the identification of 131 publications. The information provided by this platform was organized through graphs and figures categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics have been described, the position of different authors towards the proposed theme is referenced through a qualitative analysis. Among the main findings made through this research, it is found that Spain, with 26 publications, was the country with the highest scientific production registered in the name of authors affiliated with institutions in that country. The Area of Knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of Labor Competencies and Employability in Education were the Social Sciences with 97 published documents, and the Type of Publication that was most used during the period indicated above were the Journal Article with 109 documents, each, of the total scientific production.

Keywords: Labor Skills, Employability, Education, Higher Education Institutions.

# 1. INTRODUCTION

Due to the high unemployment rates experienced by the whole world, it is not surprising that higher education institutions make efforts to improve the performance of their graduates in the labor market from the acquisition of multiple skills that allow them to meet the needs required to meet the work environment. That is why today, as stated by José Castillo and Paula Villalpando in their article "The role of labor skills in the educational field: a perspective of reflection and importance": (Castillo Sarabia & Villalpando Cadena, 2019)

Education sector leaders in various countries have taken on the task of developing new educational programs based on teaching and learning alternatives. As a result, proposals have emerged for the implementation of a competency-based educational model, of which various modalities have been created. Since the 1990s there has been a growing interest in conceptualizing the term competition, and recently this concept has evolved beyond the exclusively professional perspective and has acquired a more comprehensive vision. (Castillo Sarabia & Villalpando Cadena, 2019)

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Although the term competencies could refer to multiple capabilities, in this case reference is made to those that are directly related to employability or the performance of purely labor functions, so the most appropriate definition for them would be that of Leboyer (1997, as cited in Arancibia, 2002)

Competencies are repertoires of behaviors that some people master better than others, which makes them effective in a given situation. These behaviors are observable in the daily reality of work and, equally, in test situations. They put into practice, in an integrated way, skills, personality traits and acquired knowledge. Competences thus represent the unity between individual characteristics and the qualities required to carry out precise professional missions. (Arancibia, 2002)

By covering so many aspects and characteristics of an individual, great relevance is given to labor competencies in the achievement of jobs, for this reason and in order to fulfill our general objective that in this research article seeks to describe the main characteristics of the set of publications attached to the Scopus database and that are directly related to the variables Labor Competencies and Employability in the Education, as well as the description of the position of certain authors affiliated with various institutions during the period between 2018 and 2022.

#### 2. GENERAL OBJECTIVE

Analyze from a bibliometric and bibliographic perspective, the elaboration of works on the variables Labor Competences and Employability in Education during the period 2018-2022.

#### 3. METHODOLOGY

This article is carried out through a mixed orientation research that combines the quantitative and qualitative method.

On the one hand, a quantitative analysis of the information selected in Scopus is carried out under a bibliometric approach of the scientific production corresponding to the study of Labor Competences and Employability in Education

On the other hand, examples of some research works published in the area of study indicated above are analyzed from a qualitative perspective, starting from a bibliographic approach that allows describing the position of different authors against the proposed topic.

It is important to note that the entire search was performed through Scopus, managing to establish the parameters referenced in *Figure 1*.

#### 3.1 METHODOLOGICAL DESIGN



Source: Authors.

# 3.1.1 Phase 1: Data collection

Data collection was carried out from the Search tool on the Scopus website, where 131 publications were obtained from the choice of the following filters:

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TITLE-ABS-KEY (labor AND employability AND skills AND in AND education) AND (LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2018)) AND (LIMIT-TO (EXACTKEYWORD, "Employability") OR LIMIT-TO (EXACTKEYWORD, "Education"))

 $\circ$   $\,$  Published documents whose study variables are related to the study of Labor Competencies and Employability in Education.

- Limited to the years 2018-2022.
- No limit of countries.
- Limited to the keywords Employability and Education.
- Regardless of type of publication.

# 3.1.2 PHASE 2: CONSTRUCTION OF ANALYSIS MATERIAL

The information collected in Scopus during the previous phase is organized and subsequently classified by graphs, figures and tables as follows:

- Type of publication.
- Country of origin of the publication.
- Year of publication.
- Area of knowledge.

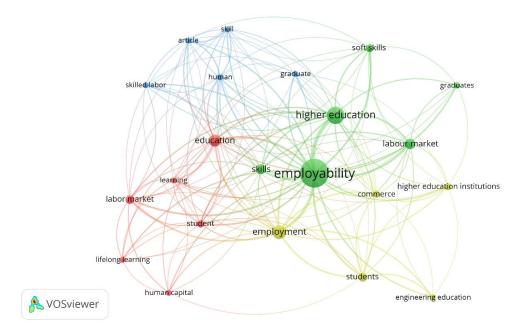
# 3.1.3 PHASE 3: DRAFTING OF CONCLUSIONS AND OUTCOME DOCUMENT

In this phase, we proceed with the analysis of the results previously yielded resulting in the determination of conclusions and, consequently, the obtaining of the final document.

# 4. RESULTS

# 4.1 CO-OCCURRENCE OF WORDS

*Figure 2* shows the co-occurrence of keywords found in the publications identified in the Scopus database.



**Figure 2.** Co-occurrence of words **Source:** Own elaboration (2023); based on data exported from Scopus.

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The data in Figure 2, exported from Scopus, shows us our variables and their relationship with other terms which we will explain below.

It is notorious that Labor Competencies and Employability are closely linked, so over time, higher education institutions have seen the need to implement new methodologies in teaching-learning processes that promote the acquisition of skills that allow graduates access to opportunities present in the labor market and once inside they are able to maintain themselves for long periods of time. For this, we have tried to emphasize the educational programs taking into account the needs of the work environment and the skills that each of the companies that make it up seeks to obtain.

#### 4.2 DISTRIBUTION OF SCIENTIFIC PRODUCTION BY YEAR OF PUBLICATION

DISTRIBUCIÓN DE LA PRODUCCIÓN CIENTÍFICA POR AÑO DE PUBLICACIÓN

Figure 3 shows how scientific production is distributed according to the year of publication.

**Figure 3**. Distribution of scientific production by year of publication. **Source:** Own elaboration (2023); based on data exported from Scopus

In figure 3 we find the scientific production concerning the variables Labor Competencies and Employability in Education during the period between 2018 and 2022, which resulted in the publication of 1009 documents, in the Scopus database, containing the keywords. Likewise, it is evident that some changes were experienced throughout the period. We started with the year 2018 with 21 documents, a number that increases during the following years reaching the highest number of publications in 2020. In 2021 the number of publications is decreased, increasing again in the following year.

From 2020, the article "Employability profiles: The case of a Spanish university" was highlighted, in which an analysis was carried out that would allow the identification of "main components" through a "logit model" that measured the level of influence of elements on which the "employability probabilities" depend, as well as "the quality of higher education degrees from the point of view of employability". As a result, five important profiles are identified such as: "experience in information technologies, standardized workers, proactive worker skills, community managers and vocational dissatisfaction". (Freire-Seoane, Lopez-Bermudez, & Pais-Montes, 2020)(Freire-Seoane, Lopez-Bermudez, & Pais-Montes, 2020)(Freire-Seoane, Lopez-Bermudez, & Pais-Montes, 2020)

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# 4.3 DISTRIBUTION OF SCIENTIFIC PRODUCTION BY COUNTRY OF ORIGIN.

Figure 4 shows how scientific production is distributed according to the nationality of the authors.



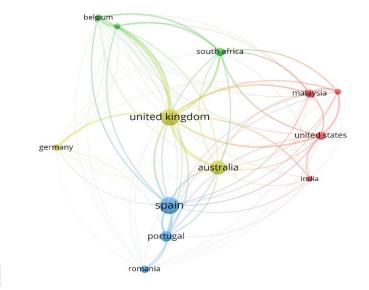
**Figure 4**. Distribution of scientific production by country of origin. **Source:** Own elaboration (2023); based on data provided by Scopus.

In the study of Labor Competences and Employability in Education, Spain leads the list of published documents with a total of 26 records in the Scopus database during the period of the years 2018-2022, followed by the United Kingdom and Australia with 24 and 18 documents respectively.

The article entitled "Transversal competences for employability in university graduates: a systematic review from the perspective of employers" carries out a review of the so-called "transversal" competences of higher education graduates from the employer's point of view. Data were collected from the Scopus and Web of Science databases in the period between 2088 and 2018, resulting in the identification of the skills most requested by employers such as "competencies in the dimensions Basic job-related skills (JRB), socio-relational skills (SR) and self-management skills (SM)" as well as the need for higher education institutions to implement "pedagogies for employability, which will strengthen the link between the academic environment and the socio-labor reality and guarantee that graduates make an adequate transition to the world of work" (Caamaño, Garcia-Alvarez, Quiroga-Carrillo, & Vazquez-Rodriguez, 2022)(Caamaño, Garcia-Alvarez, Quiroga-Carrillo, & Vazquez-Rodriguez, Alvarez, Quiroga-Carrillo, & Vazquez-Rodriguez, 2022)

At this point, it is important to note that the preparation of scientific publications in many cases is carried out from collaborations that may involve private and/or public institutions from one or more countries. Therefore, the same publication can be linked to one or more authors with different nationalities and thus to more than one country simultaneously, being part of the total number of articles or publications of each of them in the final sum. Next, in *Figure 5*, you will see in greater detail the flow of collaborative work carried out by several countries.

VOSviewer

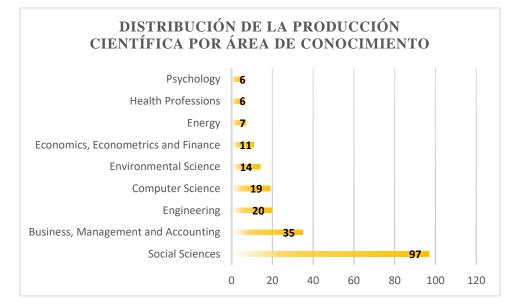


*Figure 5*. *Co-citations between countries*. **Source:** Own elaboration (2023); based on data provided by Scopus.

*Figure 5* shows the grouping of research according to the collaboration between authors belonging to various international institutions. There is evidence of outstanding participation among authors affiliated with institutions in countries such as the United Kingdom, Spain, Belgium, Germany, among others, so we can affirm that our study variables are so relevant that they transcend the different continents.

# 4.4 DISTRIBUTION OF SCIENTIFIC PRODUCTION BY AREA OF KNOWLEDGE

*Figure 6* shows the distribution of the elaboration of scientific publications from the area of knowledge through which the different research methodologies are implemented.



**Figure 6**. Distribution of scientific production by area of knowledge. **Source:** Own elaboration (2023); based on data provided by Scopus.

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Due to the nature of our variables and their importance in the economic and personal growth, as well as the development of a country, it is not surprising that most of the publications found in the Scopus database, on these are made from the social sciences occupying the main position in the publication of documents. Other areas such as business, management and accounting as well as engineering have contributed to the study of these variables, publishing 35 and 20 documents respectively.

As we can see in *Figure 6*, the variables object of this study are relevant in various areas of knowledge, since they can be analyzed from the different approaches that seek to understand the performance of professionals or graduates of any higher education institution in the labor market.

# 4.5 TYPE OF PUBLICATION

In the following graph, you will observe the distribution of the bibliographic finding according to the type of publication made by each of the authors found in Scopus.



**Figure 7**. Type of publication. **Source:** Own elaboration (2023); based on data provided by Scopus.

*Figure 7* clearly shows that the predominant type of publication in the study of Labor Competencies and Employability in Education was the journal article with a total of 109 documents each. Secondly, conference proceedings are located with 13 papers followed by reviews with 4 publications.

"Employability: A Contemporary Review for Higher Education Actors", is an article that ensures that "higher education institutions are under pressure to produce employable graduates who must contribute to the sustainability of strong economic growth and development" so it sought to contribute to a better understanding through the presentation of "contemporary evidence" as well as the main aspects that define graduates and the employer in This aspect. Finally, "recommendations are made regarding future research and the need for further theoretical contributions" (Marchant, Shacklock, & Small, 2018)(Marchant, Shacklock, & Small, 2018)(Marchant, Shacklock, & Small, 2018)

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#### 5. CONCLUSIONS

After the bibliometric analysis carried out in the present research work, it was established that Spain was the country with the highest number of records published for the variables Labor Competencies and Employability in Education with a total of 26 publications, in the Scopus database during the period 2018-2022 and that the area of knowledge with the greatest contribution was the social sciences with 97 texts.

On the one hand, we found an important number of documents associated with our variables, so we affirm that Labor Competencies and their relationship with Employability have remained in the interest of researchers in order to better understand the initiatives developed by higher education institutions around the world in response to the need to facilitate access to greater opportunities in the labor market for young graduates. referring to the chosen profession. As Eduardo Díaz mentions in his article "Education for employability: educational research approach": (Díaz Gómez, 2019)

In these articles it is possible to appreciate how teaching practices and educational programs are articulated with research. Thanks to this, the work of disseminating best educational practices that help narrow the gap between HEIs and the labor market is facilitated. (Díaz Gómez, 2019)

That is, in general, having access to these strategies implemented by some institutions could positively impact the future of others because, according to Díaz: (Díaz Gómez, 2019)

They include better opportunities to facilitate decision-making in terms of mechanisms for curriculum design, learning measurement and accountability. Potentially, the articulation between teaching, service and research can facilitate the creation of linkage programs, professional practices, job bank, student mobility and accreditation processes. All these elements of education have implications for employability. (Díaz Gómez, 2019)

However, it is important to highlight that although institutions have implemented various strategies to go hand in hand with the requirements of companies, there is no certainty that this work is obtaining the expected results, since some authors affirm "that there is a serious disarticulation between the actors involved in the generation of sources of employment and human capital trainers; the lack of soft skills among graduates and an unstable socio-economic environment" which together affects the degree of employability in the regions. For this reason and with the sole objective of continuing to raise awareness of the importance of guaranteeing access to this type of information in a transparent way by anyone, we hope to encourage with this article the participation of scientific communities in the study of these variables from any scientific profile and area of knowledge always seeking to provide more alternatives that contribute to the investigation of topics of general interest. (Apaza Jara & Quispe Yana, 2022)

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