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*Scientific articles*

**Estudio socioeducativo de la transformación del proceso  
del Reclutamiento y Selección: De los Métodos  
Tradicionales al Enfoque 5.0**

*Socio-educational study of the transformation of the Recruitment  
and Selection process: From Traditional Methods to the 5.0  
Approach*

*Estudo socioeducativo da transformação do processo de  
Recrutamento e Seleção: Dos Métodos Tradicionais à Abordagem  
5.0*

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## Resumen

Las empresas buscan sobresalir en la atracción de talento humano que se ajuste a sus necesidades organizacionales. El proceso de reclutamiento y selección asegura que los candidatos tengan el perfil adecuado, integrando valores y competencias exigidos para cada puesto. En los últimos años, el modelo tradicional de reclutamiento ha evolucionado, pasando del reclutamiento 2.0 al 5.0. Estos cambios incluyen enfoques como la selección por objetivos y por competencias. Además, el proceso de contratación se adapta continuamente a los marcos legales vigentes. Este artículo analiza las perspectivas de diversos autores sobre la evolución del reclutamiento y selección, destacando la transición hacia enfoques tecnológicos e inteligencia artificial. La empresa, como organismo vivo, evoluciona junto al avance tecnológico, el marketing y las redes sociales. Fenómenos como la pandemia han acelerado transformaciones, impulsando el uso de inteligencia artificial en lugar de métodos tradicionales.

**Palabras clave:** Reclutamiento y selección, talento humano, innovación, inteligencia artificial.

## Abstract

Companies are looking to excel in attracting human talent that fits their organizational needs. The recruitment and selection process ensures that candidates have the right profile, integrating values and competencies required for each position. In recent years, the traditional recruitment model has evolved from recruitment 2.0 to 5.0. These changes include approaches such as selection by objectives and by competencies. In addition, the recruitment process is continuously adapting to current legal frameworks. This article analyzes the perspectives of various authors on the evolution of recruitment and selection, highlighting the transition to technological approaches and artificial intelligence. The company, as a living organism, evolves along with technological progress, marketing and social networks. Phenomena such as the pandemic have accelerated transformations, driving the use of artificial intelligence instead of traditional methods.

**Keywords:** Recruitment and selection, human talent, innovation, artificial intelligence.

## Resumo

As empresas procuram destacar-se na atração de talentos humanos que se adaptem às suas necessidades organizacionais. O processo de recrutamento e seleção garante que os candidatos têm o perfil adequado, integrando os valores e as competências exigidas para cada função. Nos últimos anos, o modelo tradicional de recrutamento evoluiu do recrutamento 2.0 para o 5.0. Estas mudanças incluem abordagens como a seleção por objectivos e por competências. Além disso, o processo de recrutamento está continuamente a adaptar-se aos actuais quadros jurídicos. Este artigo analisa as perspectivas de vários autores sobre a evolução do recrutamento e seleção, destacando a transição para abordagens tecnológicas e inteligência artificial. A empresa, enquanto organismo vivo, evolui a par do progresso tecnológico, do marketing e das redes sociais. Fenómenos como a pandemia aceleraram as transformações, impulsionando a utilização da inteligência artificial em detrimento dos métodos tradicionais.

**Palavras-chave:** Recrutamento e seleção, talento humano, inovação, inteligência artificial.

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## Introduction

Management is the study of the efficient use of human and material resources through the basic processes of planning, organizing, executing, deciding, and controlling. One of its tasks is to manage human talent in organizations. This work can be carried out by administrators, psychologists, social workers and other professionals. Planned management provides a clear vision of the organization, allowing it to prioritize objectives effectively.

The purpose of this article is to describe the historical changes in the recruitment and selection process over the past five years. In our country we can find everything from artisanal production to production with artificial intelligence, and this is reflected in the process of acquiring human talent.

## Justification

This article is relevant due to the lack of understanding in the recruitment and selection process, which leads many organizations to hire staff only to fill urgent vacancies. This practice creates significant problems and leads to results in high staff turnover rates, as mentioned by Hidalgo et al. (2019), who emphasize the need for more strategic approach in these processes. In addition, human capital represents 30% of the



costs in any organization (López, 2020), in many companies it represents almost 70% of operating expenses for many companies, which positions it as a fundamental pillar within the organizational structure. Therefore, decisions related to the management of human resources have a significant impact on the effectiveness and sustainability of the company, as noted by Molina Macías (2022), highlighting the importance of the proper management of human talent for the success of the organization.

What has been the impact of the transformation of the recruitment and selection process, from traditional methods to the 5th approach, and its socio-educational impact?

### **General objective**

To analyze the impact of the transformation of the recruitment and selection process, from traditional methods to the 5th approach, and its socio-educational impact.

### **Hypothesis**

The transformation of the recruitment and selection process, from traditional methods to approach 5.0, does not generate a significant impact in the socio-educational field.

### **Methodology**

This article used a descriptive cohort study based on the PRISMA methodology for publishing systematic reviews and meta-analyses of studies evaluating health interventions (Barquero Morales, 2022). The PRISMA methodology involves the following steps: 1) define the research question, 2) develop a review protocol, 3) conduct an exhaustive search, 4) select studies, and 5) appraise them.

Scholar was used as the database with the keywords "recruitment" and "selection". Studies that complied with the PRISMA methodology (Barquero Morales, 2022) were selected and inclusion and exclusion criteria were defined:

- Inclusion criteria: studies published between 2018 and 2024, in Spanish.
- Exclusion criteria: articles that did not comply with the PRISMA methodology or blog-type publications.

The PRISMA table was used for the assessment, which includes items such as title, objective, eligibility criteria, sources of information, risk of bias, summary of results, included studies, limitations of evidence, interpretation, funding, and registration.

## Results

The initial search yielded 15,700 articles. Of these, 50 were reviewed and 24 met the PRISMA methodology. It was observed that the majority of the documents found were bachelor's and master's theses, while articles from scientific journals were less common.

The recruitment, selection and hiring process begins with the publication of a vacancy and the issuance of a written requisition. This document must include: job description, required profile, allocated budget, salary, benefits and type of contract. However, common problems have been identified, such as lack of budget and lack of clear job definitions (Piedra Mayorga et al. 2023).

The job description details the position in the organizational chart, activities to be performed, expected competencies, desired values, training needs, leave, and compensation. In the case of Mexico, organizations must follow the Mexican Official Standard 025 (NMX-R-025-SCFI-2009), which establishes requirements to ensure labor equality between women and men (Flores Valverde, 2018).

Recruitment. The recruitment process consists of collecting as many applications or resumes as possible from candidates. For this purpose, recruitment is defined as internal (within the staff of the organization) and external (outside the organization). (Biumar & Daniela Bolaños-Cerón, 2020). External recruitment is carried out through various sources, such as printed advertisements and signs placed in public spaces (Chiavenato, 2007), known as Recruitment 2.0, online platforms, (Recruitment 3.0), gamification, (Barros-Pozo & Medina- Chicaiza, 2021), the so-called artificial intelligence (Recruitment 4.0) (Guerrero-Egurrola, 2021) described in Table 1. With inbound recruiting, candidates are already familiar with the brand and its philosophy through online searches or product purchases. With the implementation of machine learning algorithms to screen resumes and job applications, the use of chatbots to interact with candidates. Using artificial intelligence (AI) to analyze large amounts of data, assess cultural fit and soft skills by analyzing interview responses, and predict candidate success. (Coronel Aquiles, 2022). In addition, virtual reality (VR) and augmented reality (AR) are being used to create work simulations that allow candidates to experience specific work tasks and environments before being hired.

The use of big data makes it possible to analyze data generated by digital interactions, such as social media preferences, to identify patterns that indicate a candidate's suitability for a job. In recent years, participatory, collaborative and inclusive approaches have also been developed in this recruitment process (Piedra Mayorga et al.

2023). All this is done with the aim of attracting the largest number of potential candidates, for which research is carried out on the industry and on potential candidates. For the presentation and pre-selection of applicants: a long list is drawn up to carry out the selection of applicants. Table 1 summarizes the different types of recruitment, highlighting the traditional and modern strategies used in the recruitment process.

**Table 1.** Summary of Recruiting Types

Author	Type of recruitment	Description
(Chiavenato, 2007)	Internal / External	This occurs when a company tries to fill a vacancy by promoting or transferring current employees. This can be a promotion or simply a change of position. It also occurs when a person from outside the organization applies for a job.
(Montero Matos, 2021)	Recruitment 2.0	In the 2.0 recruitment model, companies establish more direct and rapid contact with candidates through corporate pages, employment portals, and social networks.
( Mukiur , 2016)	Recruitment 3.0	The company utilizes technology, social media, and digital marketing strategies to attract, assess, and hire candidates. We emphasize the candidate experience, creating an attractive employer brand, using gamification, and using digital platforms. Recruiters proactively identify top talent across various platforms using predictive Big Data analysis.
(González Y, 2020)	Recruitment 4.0	Companies are leveraging social media and digital platforms to enhance their employer brand and optimize talent acquisition strategies. AI is employed to analyze vast amounts of data, gather detailed information, and track candidate performance in previous roles, labor market trends, and hiring trends. This enables informed decision-making.
(Piedra Mayorga et al, 2023)	Recruitment 5.0	When evaluating candidates, it is essential to consider their soft skills, cultural fit, and personal values as integral components of the selection process. Sustainability: When evaluating recruitment methods, prioritize those that are not only effective but also ethical and sustainable in the long term. Employ AI, machine learning, and predictive analytics to enhance the candidate experience. Prioritizing the creation of diverse and inclusive teams is also crucial.

Source: Own elaboration

## The Selection

Selection is the procedure by which the most suitable candidate for a position is identified and chosen, considering the characteristics described in the vacancy (Chiavenato, 2007). This process evaluates both hard skills (technical knowledge, education, and supporting documents) and soft skills. Psychometric tests are used to measure intelligence, personality, values, and specific abilities.

### Interviews and selection techniques

Interviews are a key tool for checking the results of psychometric tests.

- Competency-based interviews: They evaluate the skills and behaviors that candidates must possess for the position (Chiavenato, 2007).
- Critical incident interviews: They investigate specific actions carried out by candidates in the past to predict their future performance (Prieto Preboste & Chamorro Laborda, 2022).
- STAR Technique: Pose specific situations for the candidate to describe what he or she did, where, when, and what his or her achievements were.

Group techniques, such as role playing, are an integral part of our evaluation process. These techniques evaluate how candidates would address real-world scenarios, such as selling a product or managing conflicts.

### Innovations in selection

**Gamification:** This approach utilizes games, ranging from recreational activities to video games, to assess skills such as stress management, teamwork, and problem solving (Barros-Pozo & Medina-Chicaiza, 2021).

**Inbound Recruiting:** This method aims to ensure that candidates align with the company's philosophy and values before applying. For instance: For instance, McDonald's emphasizes work flexibility and social commitment (Mukiur, 2016).

Virtual interviews are also becoming more common. During the pandemic, platforms such as Zoom, Meet, and Skype were used to conduct interviews remotely.

## Onboarding

Once the candidate has been selected, the hiring and induction or onboarding process takes place.

1. General induction: Provides information about the culture, mission, vision, values and internal regulations of the organization (Chiavenato, 2017).

2. Specific induction: Orients the new employee in his/her department, detailing tools, processes and objectives of the position (Mondy & Martocchio, 2016).

Table 2 summarizes the various types of recruitment, highlighting the traditional and modern strategies used in the personnel selection process.

**Table 2.** Summary of personnel selection types

Author	Selection Type	Description
Chiavenato (2007)	Traditional selection	The recruitment process includes a series of steps, such as manual procedures, face-to-face interviews with potential candidates, and in-person review of their curriculum vitae. The evaluation of candidates relies heavily on the interviewer's subjective assessment..
Prieto Preboste & Chamorro Laborda (2022)	Selection by critical incidents	A detailed analysis of specific behaviors that are essential for success in the position has been conducted.
Chuco Aguilar (2022)	Assessment Center	This method utilizes situational tests, debates, and role-plays to recreate real work scenarios, providing a comprehensive assessment of technical and soft skills. This comprehensive approach enables a thorough evaluation of both technical and soft skills, as well as competencies.
Blasco, R.D. (2004)	Selection 2.0	The utilization of online platforms facilitates the dissemination of job postings and enables the execution of virtual interviews. This approach enhances accessibility and dissemination, contributing to a more efficient and effective recruitment process..
Barros-Pozo & Medina-Chicaiza (2021)	Gamification	Employ a variety of engaging activities to assess competencies such as motivation, teamwork, and problem-solving skills.
Mukiur (2016)	Selection 3.0	This innovative platform integrates social media and sophisticated data analysis to identify talent for recruitment. It enables the evaluation of candidates' digital profiles.
Canossa - Montes de Oca & Peraza-Villarreal (2023)	Selection 4.0	Process automation utilizing big data, artificial intelligence, and predictive algorithms. This approach eliminates human bias, enhances efficiency, and ensures accuracy.
Suarez Car & Sarmiento Paredes (2022)	Selection 5.0	The implementation of process automation tools, leveraging big data, artificial intelligence, and predictive algorithms, is essential for mitigating human bias and enhancing operational efficiency.

Source: Own elaboration

The transition from conventional recruitment and selection methods to the 5.0 approach has had a substantial impact. This evolution has incorporated advanced



technologies such as artificial intelligence, data analysis, and automation tools, which have improved the efficiency and accuracy in candidate selection. According to García and López (2022), automation eliminates the biases present in the human selection process, providing a more objective evaluation of candidates' skills and abilities.

The 5.0 approach is distinguished by its emphasis on empathy, collaboration, and continuous learning, aligning the selection process with the evolving demands of a dynamic social environment. However, a prevailing challenge in contemporary recruitment and selection practices pertains to the disconnection between academic pursuits and the labor market, impeding the alignment of university-developed competencies with the genuine requirements of corporate entities. Additionally, the evolving attitudes of new generations, particularly millennials and Generation Z, who exhibit a shift in interest from traditional employment models, further complicates the situation. These factors pose a significant challenge for companies, who must adapt their talent attraction strategies, as well as for society at large, which must rethink employment relationships and encourage innovation in work relationships. Recent studies (Pierce and Freixe, 2023; World Economic Forum; McKinsey & Company) have highlighted the need for organizations to adapt their recruitment and employment models to attract and retain a more diverse workforce with evolving expectations.

From a future research perspective, it is essential to examine the relationship between higher education and the labor market. Additionally, it is crucial to delve deeper into the analysis of the transformations in the values and expectations of new generations. These factors could significantly influence recruitment and selection processes, in addition to contributing to a better adaptation of organizations to technological and social changes. Through educational programs that prepare students for a labor market where technology and interpersonal skills coexist (López & García, 2022), organizations can better prepare their employees for the future of work.

## Discussion

The literature review reveals a landscape in which recruitment and selection of personnel face significant challenges. This process has undergone a substantial transformation, shifting from conventional methods to ones that incorporate advanced technology and a humanistic approach. According to Chiavenato (2007), the selection process aims to identify the candidate who best fits the required profile, evaluating both technical and personal skills. However, inherent limitations in traditional methods, such

as human biases in face-to-face interviews, have spurred the development of more sophisticated strategies.

The evolution of recruitment and selection reflects the need to adapt to the demands of a diversified and technological labor market. Innovative methods, such as gamification and artificial intelligence, are essential to attract and retain talent, but they must be complemented by a humanistic approach that encourages inclusion and adaptability in the work environment (Fernández & Soto, 2023). Achieving this balance is crucial for organizations to maintain competitiveness and address the expectations of new generations and global changes.

## Conclusions

This review of 24 articles analyzed the evolution of recruitment and selection processes in organizations between 2019 and 2024. These processes were influenced by technological advances and social changes. The study's findings reject the null hypothesis, as the transformation of the recruitment and selection process was observed, moving from traditional methods to approach 5, and its socio-educational impact was also noted. Organizations must reinvent their hiring and employment models to attract and retain a diverse workforce with new expectations.

For instance, the integration of artificial intelligence in the hiring process has been shown to mitigate unconscious biases by systematically analyzing résumés without divulging sensitive personal information. Structured interviews and psychometric tests have become key tools to evaluate candidates' skills more objectively, ensuring greater equity in job opportunities. Another relevant example is the creation of inclusion programs that promote the hiring of people with disabilities or from ethnic minority groups, contributing to a more equitable and enriching work environment.

The observed socio-educational impact is significant, as the modernization of these processes fosters greater equity of access to the labor market, while encouraging educational institutions to adapt their curricula to develop both technical and interpersonal skills. This is particularly relevant for organizations, as a more inclusive and talent-oriented recruitment process improves productivity, reduces staff turnover, and strengthens the company's reputation by being perceived as socially responsible. From a future research perspective, it is crucial to consider the relationship between higher education and the labor market, as well as to delve deeper into the analysis of the transformations in the values and expectations of the new generations. These elements can have a significant impact on the organization's success.

## Future Research Directions

The research directions that emerge from this analysis include the relationship between higher education and the labor market. Specifically, the focus will be on how academic training influences employability and the alignment of educational programs with market demands.

It is also essential to delve deeper into the transformations in values and expectations of the new generations and their impact on organizational culture and talent management practices. Exploration of the evolution of recruitment and selection processes is also relevant, considering the importance of interpersonal skills and the adaptation of strategies to technological and social changes.

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