EthAlca. 2025; 4:400 doi: 10.56294/ai2025400





Attitudes and perceptions toward artificial intelligence on teacher job satisfaction at a medical school in northern Peru

Actitudes y percepciones hacia la inteligencia artificial sobre la satisfacción laboral docente en una facultad de medicina del norte del Perú

Teresa Carolina Cacho Quiroz¹ □ ⋈, Miguel Ángel Díaz Cabanillas¹ □ ⋈, Rosa Milagros Vigo Quispe¹ □ ⋈, Enzo Bazualdo Fiorini¹ □ ⋈

¹Universidad Nacional de Cajamarca. Perú.

Cite as: Cacho Quiroz TC, Díaz Cabanillas M Ángel, Vigo Quispe RM, Fiorini EB. Attitudes and perceptions toward artificial intelligence on teacher job satisfaction at a medical school in northern Peru. EthAlca. 2025; 4:400. https://doi.org/10.56294/ai2025400

Submitted: 06-02-2025 Revised: 16-05-2025 Accepted: 14-10-2025 Published: 15-10-2025

Editor: PhD. Rubén González Vallejo

Corresponding Author: Teresa Carolina Cacho Quiroz

ABSTRACT

Objective: determine the relationship between attitude and perception of AI in teaching job satisfaction at a Faculty of Human Medicine.

Method: a quantitative, non-experimental, analytical-correlational and transectional research was carried out, with a sample of 87 teachers selected through non-probabilistic sampling.

Results: the results revealed that 74,7 % of teachers expressed positive attitudes towards AI, while 80,5 % presented positive perceptions. Regarding job satisfaction, 78,2 % reported a regular level, 20,7 % a high level and only 1,1 % a low level. Perception towards AI showed a low but significant positive correlation with job satisfaction (Rho = 0,285, p = 0,036), while attitudes did not show a significant relationship (p = 0,264). Additionally, it was found that factors such as the contractual employment relationship influence openness towards AI. Hired teachers with less experience (1-3 years) showed a greater positive predisposition towards technology.

Conclusions: it was determined that the perception towards AI of university teachers has a significant relationship with their job satisfaction. These findings underscore the importance of teacher training and institutional policies to integrate AI effectively, optimizing both job satisfaction and educational performance.

Keywords: Artificial Intelligence; Job Satisfaction; Higher Education.

RESUMEN

Objetivo: determinar la relación entre la actitud y percepción de la IA en la satisfacción laboral docente en una facultad de Medicina Humana.

Método: se realizó una investigación cuantitativa, no experimental, analítico-correlacional y transeccional, con una muestra de 87 docentes seleccionados mediante muestreo no probabilístico.

Resultados: los resultados revelaron que el 74,7 % de los docentes manifestó actitudes positivas hacia la IA, mientras que el 80,5 % presentó percepciones positivas. En cuanto a la satisfacción laboral, el 78,2 % reportó un nivel regular, el 20,7 % un nivel alto y solo el 1,1 % un nivel bajo. La percepción hacia la IA mostró una correlación positiva baja pero significativa con la satisfacción laboral (Rho = 0,285, p = 0,036), mientras que las actitudes no evidenciaron una relación significativa (p = 0,264). Adicionalmente, se encontró que factores como la relación laboral contractual influye en la apertura hacia la IA. Los docentes contratados y con menor experiencia (1-3 años) mostraron mayor predisposición positiva hacia la tecnología.

Conclusiones: se determinó que la percepción hacia la IA de los docentes universitarios presenta relación significativa con la satisfacción laboral de estos. Estos hallazgos subrayan la importancia de la capacitación

© 2025; Los autores. Este es un artículo en acceso abierto, distribuido bajo los términos de una licencia Creative Commons (https://creativecommons.org/licenses/by/4.0) que permite el uso, distribución y reproducción en cualquier medio siempre que la obra original sea correctamente citada

docente y de políticas institucionales para integrar la IA de manera efectiva, optimizando tanto la satisfacción laboral como el desempeño educativo.

Palabras clave: Inteligencia Artificial; Satisfacción Laboral; Educación Superior.

INTRODUCTION

The origins of artificial intelligence (AI) date back to the 20th century, when Alan Turing developed the principles of universal machines, laying the foundations for this technology. As early as 1956, John McCarthy formally introduced the term "Artificial Intelligence," marking the beginning of a broad field of research that has evolved into practice in sectors such as education and the workplace.⁽¹⁾

Literature from 2022 and 2024 showed that AI has become increasingly relevant for performing tasks that previously required human skills, such as learning, planning, and problem-solving. This has made it an essential tool for simplifying processes and facilitating complex tasks. (2,3) Research on teachers' perceptions of AI varied according to factors such as accessibility, training in its use, and the degree of integration into daily activities. This overview highlighted the importance of analyzing attitudes and perceptions toward AI in education, particularly regarding its influence on teacher job satisfaction, as a key step toward optimizing its adoption and maximizing its benefits. (4)

Al reflected opportunities and challenges in the university teaching network. Opportunities were noted to reformulate pedagogical methodologies to improve teaching and learning for students.^(5,6) Challenges, meanwhile, highlighted the need for teachers to adapt to the use of contemporary technologies for classroom development and the presentation of tools, and to increase the knowledge to be imparted.⁽⁷⁾

Internationally, a 2024 systematic review in Ecuador found that the application of AI in education facilitated the personalization of teaching strategies, contributing to greater teacher job satisfaction. (3,4) However, concerns have been raised about ethical and social issues, such as the depersonalization of the educational process and excessive reliance on automated systems. Thus, studies in Costa Rica and Paraguay in 2024 highlighted the need to explore how AI can be used to understand student needs better and optimize teaching methods, while not losing sight of potential limitations. (8,9)

At the national level, in a non-experimental quantitative study on the attitudes and perceptions of university teachers towards AI in 2024, where the sample consisted of 42 teachers, almost 74 % had a positive attitude and 55 % trusted the technologies; at the same time, it highlights that AI related to university pedagogy is in a process of transition due to its early inclusion and application. (7) Another study conducted in 2023 at a university in Chiclayo, which analyzed the influence of AI, specifically ChatGPT, on university teaching, found it to be a great help but still presented errors that, without human oversight, would constitute a deficit in education rather than progress. (10) Finally, the research emphasized that as the digital age advances, the need to integrate applied technologies with pedagogical methodology in our country becomes apparent, highlighting the role of national and university authorities in ensuring that teachers and students receive ongoing training. (11)

The study of university teachers' working conditions and their satisfaction with the system and resources was critical in the accreditation of these universities, as it focused on the relationship between effectiveness and efficiency in teaching methodology. Job satisfaction encompasses actors' attitudes towards their employment and can lead to favorable or unfavorable behaviors. This individual-work correlation was one of the most critical variables in the progress towards better quality university teaching. (12)

In 2019, research examined faculty job satisfaction and commitment to the institution, comparing satisfied and dissatisfied faculty, but found an unclear, unstable relationship between the variables. This correlation was based on items such as access to tools that favored class development and ease of use of technologies. The age factor of teachers was also considered, with younger teachers showing an indirect, inverse relationship: they had greater knowledge and greater ease in implementing Al in their teaching methodology. (12)

This analysis was relevant because the integration of artificial intelligence (AI) in educational contexts significantly changed work and teaching dynamics, impacting teachers' attitudes and perceptions regarding their professional work. It was also essential to promote tactics that fostered an ideal working environment, encouraged the proper use of AI tools within the framework of educational policy, and informed decision-making regarding AI adoption. At the regional level in the department of Cajamarca, no similar research was found, leaving us with the question: Among teachers at a medical school in northern Peru, how do attitudes and perceptions toward artificial intelligence relate to job satisfaction in 2024? For this reason, the main objective was to determine the relationships among attitudes and perceptions of AI, job satisfaction, and teacher characteristics among teachers at a faculty of human medicine. Specific objectives included identifying the levels of attitude and perception towards AI, determining the level of job satisfaction among teachers at a human medicine faculty, and finally relating other essential aspects of attitudes and perceptions towards AI to

job satisfaction among teachers at a human medicine faculty in northern Peru in 2024. We propose the general hypothesis that there is a relationship between attitude and perception towards AI and teacher job satisfaction in a Faculty of Human Medicine in northern Peru, 2024.

METHOD

The study was quantitative because it sought to verify the validity of the hypothesis proposed; dogmatic in nature, as it originates from a theoretical framework and aims to promote scientific knowledge; (13) non-experimental in design, because the exposure variable is not manipulated and situations are not generated, but instead existing situations are observed; (14,15) and analytical-correlational in nature, as it seeks to determine the existence of a relationship between two or more variables, (15) and it was cross-sectional because the data were collected at a single point in time. (15,16)

The population consisted of 110 university teachers who were active during the 2024 academic year in the Faculty of Human Medicine at the selected university. Non-probabilistic sampling was used to select the participants or sample, which ensured that each teacher had the same probability of being included in the study. (14,15) The sample consisted of 87 teachers, determined with a confidence level of 95 % and a margin of error of 5 %. The sampling was determined based on the population's accessibility and total size in the research context, using the QuestionPro sample size calculator.

Data were collected through a direct survey using a structured questionnaire to determine attitudes and perceptions towards AI use and teacher job satisfaction. This questionnaire, "Attitudes and perceptions towards artificial intelligence on teacher job satisfaction in a medical school in northern Peru, 2024": Introduction, presentation, respondent data, and questionnaire on the variables. The survey has 46 questions, including four questions on the attitude toward AI variable, with four indicators and two dimensions: acceptance of AI and trust in AI. The AI perception variable comprises six questions, six indicators, and three dimensions: perception of AI's impact, knowledge about AI, and future expectations. The job satisfaction variable consists of 36 questions, distributed across three dimensions: material conditions and job benefits; policies, relationships, and personal development; and performance and relationship with authority. The Likert scale was used, with 1 = never and 5 = always, and closed questions were categorized as: strongly disagree (value=1), disagree (value=2), undecided or neutral (value=3), agree (value=4), and strongly agree (value=5). The variables attitudes and perceptions towards AI had an acceptable reliability (Cronbach's alpha) of 0,79954. For the job satisfaction variable, the Cronbach's alpha coefficient was 0,894.

Likewise, SPSS version 27 was used for data analysis, including descriptive techniques, calculating percentages, and displaying results in frequency tables. Inferential statistics were also used to examine the relationship between variables, address the project objectives, and assess the validity of the hypothesis. We first evaluated normality (p<0,001), then used Spearman's correlation coefficient.⁽¹⁸⁾

From an ethical perspective, voluntary participation by teachers, integrity, and the absence of harm to the respondent were ensured, and validity was of utmost importance throughout the study. In addition, the information obtained from the participants was confidential, and the respondents' names were not disclosed. Experts in education and technology validated the questionnaire, and a pilot test was conducted to verify its clarity, relevance, and reliability to measure the reliability of the instrument.⁽¹⁹⁾

RESULTS

Once the necessary data had been obtained from the surveys, we proceeded to tabulate and organize it. For the variable of attitude toward AI, we used the Likert scale assessment criteria, where we classified a "negative" attitude with values between 4-9 points, a "neutral" attitude with values between 10-14 points, and a "positive" attitude with values between 15-20 points. For the AI perception variable, we used the Likert scale, where we classified a "negative" attitude with values between 6-13 points, a "neutral" attitude with values between 14-21 points, and a "positive" attitude with values between 22-30 points. For the job satisfaction variable, we also used a Likert scale, classifying a "low" level of job satisfaction with a score between 36-84 points, a "moderate" level with a score between 85-132 points, and a "high" level with a score between 133-180 points.

Table 1 shows that, among the 87 teachers surveyed at a medical school in northern Peru in 2024, 74,7 % have a positive attitude toward artificial intelligence (AI), 20,7 % maintain a neutral attitude, and only 4,6 % have a negative attitude. Regarding university teachers' perceptions of AI, 80,5 % are positive, 16 % are neutral, and only 3,5 % are negative. The p-value = 0,264, obtained using the chi-square test, indicates that attitudes toward AI do not significantly influence job satisfaction levels, and p = 0,036 suggests that perceptions of AI significantly influence job satisfaction levels. In Spearman's correlation interpretation, there is a very low positive correlation between the level of attitude towards AI and the level of teacher job satisfaction; in addition, there is a low positive correlation between the level of perception towards AI and the level of teacher job satisfaction.

Table 1. Attitudes and perceptions toward AI on teacher job satisfaction by levels at a medical school in northern Peru, 2024

| | | | Level of job satisfaction among university teachers | | | | | | | |
|-----------------------------------|----------|---|---|---------|------|-------|-------|----------------|--|--|
| | | | Low | Average | High | Total | Р | Spearman's Rho | | |
| Level of attitude of | Negative | f | 0 | 4 | 0 | 4 | 0,264 | 0,141 | | |
| university teachers towards Al | | % | 0 | 4,6 | 0 | 4,6 | | | | |
| towards Ar | Neutral | f | 1 | 14 | 3 | 18 | | | | |
| | | % | 1,1 | 16,1 | 3,5 | 20,7 | | | | |
| | Positive | f | 0 | 50 | 15 | 65 | | | | |
| | | % | 0,0 | 57,5 | 17,2 | 74,7 | | | | |
| | Total | f | 1 | 68 | 18 | 87 | | | | |
| | | % | 1,1 | 78,2 | 20,7 | 100,0 | | | | |
| University teachers' | Negative | f | 0 | 3 | 0 | 3 | 0,036 | 0,285 | | |
| perception of Al | | % | 0,0 | 3,5 | 0,0 | 3,5 | | | | |
| | Neutral | f | 1 | 13 | 0 | 14 | | | | |
| | | % | 1,1 | 14,9 | 0,0 | 16,0 | | | | |
| | Positive | f | 0 | 52 | 18 | 70 | | | | |
| | | % | 0,0 | 59,8 | 20,7 | 80,5 | | | | |
| | Total | f | 1 | 68 | 18 | 87 | | | | |
| | | % | 1,1 | 78,2 | 20,7 | 100,0 | | | | |

| Table 2. Normality Test | | | | | | | | | |
|---|--------------------|----|--------------|--|--|--|--|--|--|
| | Kolmogorov-Smirnov | | | | | | | | |
| | Statistic | gl | Significance | | | | | | |
| Level of university teachers' attitude toward Al | 0,453 | 87 | <0,001 | | | | | | |
| University teachers' level of perception towards Al | 0,482 | 87 | <0,001 | | | | | | |
| Level of job satisfaction among university teachers | 0,470 | 87 | <0,001 | | | | | | |

Table 3. Distribution by personal characteristics of teachers at a medical school in northern Peru, 2024

| | | Frequency | Percentage |
|------------------------|------------------|-----------|------------|
| Ages | Under 30 | 5 | 5,7 |
| | 30-39 | 28 | 32,2 |
| | 40-49 | 30 | 34,5 |
| | Over 50 | 24 | 27,6 |
| | Total | 87 | 100,0 |
| Gender | Male | 54 | 62,1 |
| | Female | 33 | 37,9 |
| | Total | 87 | 100,0 |
| Work experience | 1-3 years | 36 | 41,4 |
| | 4-6 years | 19 | 21,8 |
| | Over 6 years old | 32 | 36,8 |
| | Total | 87 | 100,0 |
| Contractual employment | Hired | 64 | 73,6 |
| relationship | Appointed | 23 | 26,4 |
| | Total | 87 | 100,0 |

Table 2 presents the results of the Kolmogorov-Smirnov normality test applied to three variables studied in a group of 87 university teachers: attitude toward artificial intelligence (AI), perception of AI, and job satisfaction. In all cases, the Kolmogorov-Smirnov statistic values (0,453, 0,482, and 0,470) are high, and the associated significances are less than 0,001. This indicates that none of the variables follow a normal distribution, suggesting the need to use nonparametric statistical tests.

Table 3 shows that, of the 87 teachers surveyed at a medical school in northern Peru, the majority are between 40 and 49 years old (34,5%), followed by the 30 to 39 age group (32,2%), with those under 30 being the least represented (5,7%). In terms of gender, men predominate (62,1%) over women (37,9%). With regard to work experience, 41,4% have between 1 and 3 years, 36,8% have more than 6 years, and only 21,8% have between 4 and 6 years. In addition, 73,6% work under contract and 26,4% are appointed. All these differences are statistically significant, highlighting a predominance of male teachers with less seniority and on temporary contracts.

| Table 4. Distribution of attitudes and perceptions toward AI and job satisfaction by level among teachers at a medical school in northern Peru, 2024 | | | | | | | | | | | |
|---|----------------------|----|---------|--|--|--|--|--|--|--|--|
| | Frequency Percentage | | | | | | | | | | |
| Level of university teachers' | Negative | 4 | 4,6 | | | | | | | | |
| attitudes toward Al | Neutral | 18 | 20,7 | | | | | | | | |
| | Positive | 65 | 74,7 | | | | | | | | |
| | Total | 87 | 100,0 | | | | | | | | |
| University teachers' perception | Negative | 3 | 3,4 | | | | | | | | |
| of Al | Neutral | 14 | 16,1 | | | | | | | | |
| | Positive | 70 | 80,5 | | | | | | | | |
| | Total | 87 | 100,0 | | | | | | | | |
| Level of job satisfaction among | Low | 1 | 1,1 | | | | | | | | |
| university teachers | Average | 68 | 78,2 | | | | | | | | |
| | High | 18 | 20,7 | | | | | | | | |
| | Total | 87 | 100,0 % | | | | | | | | |

Table 4 shows the distribution of the study variables, their frequency, and respective percentages, from which it can be seen that the majority of teachers have a positive attitude toward AI, with a frequency of 65 teachers, representing 74,7 %; 18 teachers have a neutral attitude (20,7 %), and 4 have a negative attitude (4,6 %). Similarly, it is evident that most teachers have a positive perception of AI, represented by 70 teachers (80,5 %), 14 teachers with a neutral perception (16,1 %), and 3 teachers with a negative perception (3,4 %). Finally, it shows that the majority of teachers have a moderate level of job satisfaction, represented by a frequency of 68, or 78,2 %; 1 teacher reported low satisfaction (1,1 %) and 18 teachers reported high satisfaction (20,7 %).

Table 5 shows that among the 87 teachers surveyed at a medical school in northern Peru, the majority have a positive attitude toward artificial intelligence (74,7 %). In contrast, 20,7 % maintain a neutral stance and 4,6 % have a negative attitude. By age group, teachers aged 40 to 49 have the highest percentage of positive attitudes (28,7 %), followed by those aged 30 to 39 (26,4 %). In terms of gender, both men (46,0 %) and women (28,7 %) have mostly positive attitudes. In terms of work experience, teachers with 1 to 3 years of experience show the highest positive attitudes (33,3 %). By contract type, contract teachers have a higher percentage of positive attitudes (59,8 %) than tenured teachers (14,9 %), with this difference statistically significant (p =0,009). Regarding perceptions of AI, 80,5 % of teachers have a favorable view, 16,1 % are neutral, and only 3,4 % have a negative view. By age, teachers aged 30 to 39 (29,9 %) and 40 to 49 (27,6 %) have the most positive perceptions. In the gender analysis, men predominate, with 48,3 % of positive perceptions compared to 32,2 % among women. According to work experience, teachers with more than 6 years of experience have the highest percentage of positive perceptions (26,4%). By type of contract, contract teachers also stand out with 63,2% positive perceptions, compared to 17,2 % among tenured teachers, a difference that is significant (p = 0,010). The interpretation of Spearman's correlation (Rho) shows that the levels of attitude and perception towards All are negatively correlated with the teacher's personal characteristics, except for gender, which shows a very low positive relationship with the variables in question.

| Table 5. Distribution of attitudes and perceptions towards AI by level and their relationship with personal characteristics of teachers at a medical school in northern Peru, 2024 | | | | | | | | | | | u, 2024 | | | |
|--|-------------------|---|---|---------|----------|-------|--------|-------------|-------------|--------------|------------|-----------|------|--------|
| | | | Level of attitude of university teachers towards Al | | | | | Level of pe | rception of | f university | teachers t | owards Al | | |
| | | | Negative | Neutral | Positive | Total | р | Rho | Negative | Neutral | Positive | Total | р | Rho |
| Ages | Under 30 | f | 1 | 2 | 2 | 5 | 0,31 | -0,055 | 0 | 2 | 3 | 5 | 0,08 | -0,152 |
| | | % | 1,1 | 2,3 | 2,3 | 5,7 | | | 0,0 | 2,3 | 3,4 | 5,7 | | |
| | 30-39 | f | 1 | 4 | 23 | 28 | | | 0 | 2 | 26 | 28 | | |
| | | % | 1,1 | 4,6 | 26,4 | 32,2 | | | 0,0 | 2,3 | 29,9 | 32,2 | | |
| | 40-49 | f | 1 | 4 | 25 | 30 | | | 1 | 5 | 24 | 30 | | |
| | | % | 1,1 | 4,6 | 28,7 | 34,5 | | | 1,1 | 5,7 | 27,6 | 34,5 | | |
| | Over 50 | f | 1 | 8 | 15 | 24 | | | 2 | 5 | 17 | 24 | | |
| | | % | 1,1 | 9,2 | 17,2 | 27,6 | | | 2,3 | 5,7 | 19,5 | 27,6 | | |
| | Total | f | 4 | 18 | 65 | 87 | | | 3 | 14 | 70 | 87 | | |
| | | % | 4,6 | 20,7 | 74,7 | 100,0 | | | 3,4 | 16,1 | 80,5 | 100,0 | | |
| Gender | Male | f | 3 | 11 | 40 | 54 | 0,41 | 0,025 | 3 | 9 | 42 | 54 | 0,19 | 0,096* |
| | | % | 3,4 | 12,6 | 46,0 | 62,1 | | | 3,4 | 10,3 | 48,3 | 62,1 | | |
| | Female | f | 1 | 7 | 25 | 33 | | | 0 | 5 | 28 | 33 | | |
| | | % | 1,1 | 8,0 | 28,7 | 37,9 | | | 0,0 | 5,7 | 32,2 | 37,9 | | |
| | Total | f | 4 | 18 | 65 | 87 | | | 3 | 14 | 70 | 87 | | |
| | | % | 4,6 | 20,7 | 74,7 | 100,0 | | | 3,4 | 16,1 | 80,5 | 100,0 | | |
| Work experience | 1-3 years | f | 2 | 5 | 29 | 36 | 0,09 | -0,142 | 0 | 5 | 31 | 36 | 0,06 | -0,170 |
| | | % | 2,3 | 5,7 | 33,3 | 41,4 | | | 0,0 | 5,7 | 35,6 | 41,4 | | |
| | 4-6 years | f | 0 | 4 | 15 | 19 | | | 0 | 3 | 16 | 19 | | |
| | | % | 0,0 | 4,6 | 17,2 | 21,8 | | | 0,0 | 3,4 | 18,4 | 21,8 | | |
| | More than 6 years | f | 2 | 9 | 21 | 32 | | | 3 | 6 | 23 | 32 | | |
| | | % | 2,3 | 10,3 | 24,1 | 36,8 | | | 3,4 | 6,9 | 26,4 | 36,8 | | |
| | Total | f | 4 | 18 | 65 | 87 | | | 3 | 14 | 70 | 87 | | |
| | | % | 4,6 | 20,7 | 74,7 | 100,0 | | | 3,4 | 16,1 | 80,5 | 100,0 | | |
| Contractual employment | Hired | f | 2 | 10 | 52 | 64 | 0,009* | -0,252 | 0 | 9 | 55 | 64 | 0,01 | -0,250 |
| relationship | | % | 2,3 | 11,5 | 59,8 | 73,6 | | | 0,0 | 10,3 | 63,2 | 73,6 | | |
| | Appointed | f | 2 | 8 | 13 | 23 | | | 3 | 5 | 15 | 23 | | |
| | | % | 2,3 | 9,2 | 14,9 | 26,4 | | | 3,4 | 5,7 | 17,2 | 26,4 | | |
| | Total | f | 4 | 18 | 65 | 87 | | | 3 | 14 | 70 | 87 | | |
| | | % | 4,6 | 20,7 | 74,7 | 100,0 | | | 3,4 | 16,1 | 80,5 | 100,0 | | |

https://doi.org/10.56294/ai2025400

Table 6. Distribution of teacher job satisfaction by level and its relationship with the personal characteristics of teachers at a medical school in northern Peru, 2024

| | | | Level of job satisfaction among university teachers | | | | | |
|------------------------|-------------|---|---|---------|------|-------|-------|-------|
| | | | Low | Average | High | Total | р | Rho |
| Ages | Under 30 | f | 1 | 4 | 0 | 5 | 0,355 | -0,04 |
| | | % | 1,1 | 4,6 | 0,0 | 5,7 | | |
| | 30-39 years | f | 0 | 21 | 7 | 28 | | |
| | | % | 0,0 | 24,1 | 8,0 | 32,2 | | |
| | 40-49 years | f | 0 | 21 | 9 | 30 | | |
| | | % | 0,0 | 24,1 | 10,3 | 34,5 | | |
| | Over 50 | f | 0 | 22 | 2 | 24 | | |
| | | % | 0,0 | 25,3 | 2,3 | 27,6 | | |
| | Total | f | 1 | 68 | 18 | 87 | | |
| | | % | 1,1 | 78,2 | 20,7 | 100,0 | | |
| Gender | Male | f | 0 | 46 | 8 | 54 | 0,081 | 0,151 |
| | | % | 0,0 | 52,9 | 9,2 | 62,1 | | |
| | Female | f | 1 | 22 | 10 | 33 | | |
| | | % | 1,1 | 25,3 | 11,5 | 37,9 | | |
| | Total | f | 1 | 68 | 18 | 87 | | |
| | | % | 1,1 | 78,2 | 20,7 | 100,0 | | |
| Work experience | 1-3 years | f | 1 | 29 | 6 | 36 | 0,316 | 0,052 |
| | | % | 1,1 | 33,3 | 6,9 | 41,4 | | |
| | 4-6 years | f | 0 | 13 | 6 | 19 | | |
| | | % | 0,0 | 14,9 | 6,9 | 21,8 | | |
| | More than 6 | f | 0 | 26 | 6 | 32 | | |
| | years | % | 0,0 | 29,9 | 6,9 | 36,8 | | |
| | Total | f | 1 | 68 | 18 | 87 | | |
| | | % | 1,1 | 78,2 | 20,7 | 100,0 | | 0,028 |
| Contractual employment | Hired | f | 1 | 50 | 13 | 64 | 0,398 | |
| relationship | | % | 1,1 | 57,5 | 14,9 | 73,6 | | |
| | Appointed | f | 0 | 18 | 5 | 23 | | |
| | | % | 0,0 | 20,7 | 5,7 | 26,4 | | |
| | Total | f | 1 | 68 | 18 | 87 | | |
| | | % | 1,1 | 78,2 | 20,7 | 100,0 | | |

Table 6 shows that, of the 87 teachers surveyed at a medical school in northern Peru in 2024, the majority are between 40 and 49 years old (34,5%), followed by the 30 to 39 age group (32,2%), while those under 30 are the least represented (5,7%). In terms of gender, men predominate (62,1%) over women (37,9%). With regard to work experience, 41,4% of teachers have between 1 and 3 years, 36,8% have more than 6 years, and only 21,8% have 4 to 6 years of experience. In terms of employment status, 73,6% of respondents work under contract, while 26,4% are permanent employees. Overall, the majority of teachers (78,2%) report a moderate level of job satisfaction, while 20,7% are satisfied and only 1,1% report low job satisfaction. The differences observed in the categories of gender, work experience, and contractual relationship are not statistically significant (p > 0,05).

DISCUSSION

Artificial intelligence (AI) has become a transformative tool across various fields, including education, significantly impacting teacher job satisfaction by optimizing processes and reducing administrative burden. (1) These technologies allow teachers to automate repetitive tasks, personalize teaching, and access valuable data to assess student progress. (2) However, job satisfaction depends not only on the implementation of AI, but also on the teacher's willingness to adopt it, as attitude toward technological change is a key factor in determining its positive impact. (3) Teacher job satisfaction reflects well-being and the perception of success in fulfilling their

responsibilities, as low levels of satisfaction can translate into stress and lower professional performance. (4) Therefore, it is classified into high, moderate, or low levels of satisfaction, based on individual perceptions of the benefits and challenges of using artificial intelligence in their work environment.

The attitude of university teachers towards AI is predominantly positive, with an average of 70 % or more. Attitude is defined as the degree of acceptance and confidence that teachers have in the use of digital tools today. This aligns with previous research that emphasizes the need for teachers to embrace the integration of new technologies to reduce resistance to AI. The implementation of AI in teaching methodology, suggesting a favorable relationship between teaching and learning.

Teachers' perception of AI is predominantly positive, with over 80 % rating it positively. Perception is defined as the impact on current teaching, prior knowledge of tools, and teachers' future expectations. (7) This aligns with a study that highlights how AI has enabled teachers to improve teaching quality. (20) In China in 2022, benefits for teaching were identified, favoring a balance between education, learning, and efficiency. (21) It is essential for the systematization and optimization of pedagogical routes. (22)

On the other hand, it is emphasized that AI can significantly transform task management without replacing professionals. (23) This suggests that it could be seen as a complementary tool rather than a threat. (24) Studies in Asia address ethical challenges associated with the integration of AI, such as privacy and bias in automated systems. (25) Finally, it is crucial to reflect on the low percentage of neutral and negative perceptions. Studies conducted in 2024 in Ecuador and Mexico reveal challenges in adopting AI in education. Lack of knowledge, resistance to change, and the dehumanization of education are significant factors. (26) Likewise, they express concern about the risks in developing assessments and tasks, leading to reduced students' effort and capacity. (27)

Job satisfaction was moderate, with a prevalence of over 75 %. This variable is defined as the set of attitudes toward work, including behavioral and psychological dispositions, and serves as an intermediary between working conditions and institutional development. These results align with studies indicating that motivational factors and favorable working conditions positively influence teacher job satisfaction. However, determinants such as financial rewards and performance evaluation suggest that teachers do not experience an optimal level of satisfaction. Likewise, other findings highlight that there is a significant relationship between digital skills and job satisfaction, taking into account the inclusion of Al in teaching. Other research from Spain, Peru, and Argentina shows that personal factors and working conditions play an important role in teachers' overall satisfaction. All these studies are essential because they enable the integration of Al into teaching, while recognizing that such a change must be accompanied by improvements in the working environment to enhance teachers' job satisfaction with Al. (37,38,39)

Other determinants of the attitude-perception relationship towards AI and teacher job satisfaction include university teachers' beliefs about the use of AI for teaching, as reported in a 2024 study conducted in Spain. (40,41) In addition, it is essential to correlate teachers' personal characteristics, such as age, gender, work experience, and contractual status, to determine whether any of these factors significantly affect job satisfaction. (7)

This study has notable strengths, such as the use of a quantitative approach supported by validated and reliable instruments, which guarantees the accuracy and consistency of the data obtained. In addition, the application of nonparametric analyses ensures adequate results even when the data do not follow a normal distribution. However, there are limitations to be considered, including the restriction of the sample to a single medical school, which limits the generalizability of the findings to other educational contexts. Likewise, the cross-sectional approach prevents the observation of changes over time, while response bias, common in self-reported questionnaires, may affect response accuracy.

CONCLUSIONS

It was determined that perceptions of AI significantly impact teachers' job satisfaction, indicating that several factors contribute to better teaching and, therefore, greater job satisfaction. However, attitudes toward AI did not show a significant relationship with teacher job satisfaction, which may be attributed to teachers' insufficient knowledge of or exposure to these technologies.

A positive attitude and perception toward AI were identified, suggesting that most teachers recognize its potential as an educational tool.

A moderate level of teacher job satisfaction, with a high prevalence, was reported, driven by factors such as motivation and favorable working conditions that promote better performance.

Personal factors, such as contractual employment status, significantly influenced attitudes and perceptions toward AI. Contract teachers showed higher levels of positive attitudes and perceptions toward AI compared to tenured teachers. This suggests that openness to technology may be associated with younger generations and their familiarity with digital tools. Otherwise, no personal factors significantly influence job satisfaction.

RECOMMENDATIONS

To address the limitations of this study and enhance future research, it is recommended to expand the sample across different educational contexts and to adopt longitudinal designs that allow for the observation of changes over time. In practice, it is necessary to design teacher-training programs that provide teachers with valuable tools to integrate into their work. At the institutional level, it is essential to establish policies that ensure the equitable and accessible implementation of these technologies, taking into account not only technical needs but also ethical concerns that may arise during implementation.

These results show that integrating artificial intelligence into education is not only significant but also necessary to transform teaching. However, it is essential to focus on two aspects: teacher training and improving working conditions. On the one hand, teachers must receive continuous training to acquire the digital skills needed to make the most of AI. On the other hand, institutions must ensure a favorable working environment with technological implementation, better working conditions, and administrative support. Only in this way can the incorporation of AI have a positive impact on job satisfaction and educational quality.

BIBLIOGRAPHIC REFERENCES

- Ardisana EFH, Gainza BM. INTELIGENCIAARTIFICIAL (ChatGPT) EN LA EDUCACIÓN UNIVERSITARIA: REALIDAD Y CONSIDERACIONES ÉTICAS. 2024. https://preprints.scielo.org/index.php/scielo/preprint/view/9560
- 2. Cruz Silva JA, Gordillo Pérez S. Inteligencia artificial en el campo laboral: conflicto de rol y bienestar. Redmarka Rev Académica Mark Apl. 2022;26(1):52-61. https://dialnet.unirioja.es/servlet/ articulo?codigo=8502733
- Rangel JAA. INTELIGENCIA ARTIFICIAL Y LIDERAZGO DIRECTIVO. UNA CULTURA PROFESIONAL COLABORATIVA EN LA GESTIÓN EDUCATIVA. Rev Científica Ideas Tend Socioeconómicas. 29 de febrero de 2024;1(1):19-35. https://revistas.utch.edu.co/ojs/index.php/tendensocieco/article/view/853
- 4. González SJG, González N de la N. Perspectivas de docentes universitarios sobre la inteligencia artificial en la educación. Yachana Rev Científica. 31 de julio de 2024;13(2):69-82. http://revistas.ulvr.edu.ec/index. php/yachana/article/view/929
- 5. Rodriguez EBB. Docentes ante la inteligencia artificial en una universidad pública del norte del Perú. Educación. 31 de marzo de 2024;33(64):8-28. https://revistas.pucp.edu.pe/index.php/educacion/article/ view/28590
- 6. Fernández-Bringas T, Chinchay Pajuelo AS. Competencia digital de información e inteligencia artificial en docentes universitarios en el Perú: retos de la pospandemia. En Blanco Negro Vol 14 Núm 1 2023. 9 de febrero de 2024; https://repositorio.pucp.edu.pe/index/handle/123456789/198560
- 7. Ledesma Vallejos KS. Actitudes y percepciones hacia la Inteligencia Artificial en las prácticas educativas en estudiantes y docentes universitarios de Trujillo, 2024. Repos Inst - UCV. 2024; https://repositorio.ucv.edu. pe/handle/20.500.12692/149934
- 8. Alfaro Salas H, Díaz Porras JA, Alfaro Salas H, Díaz Porras JA. Percepciones del personal docente acerca del uso ético de la inteligencia artificial en su labor educativa. Rev Innovaciones Educ. diciembre de 2024;26(41):63-77. http://www.scielo.sa.cr/scielo.php?script=sci_abstract&pid=S2215-41322024000200063&lng=en&nrm=iso &tlng=es
- 9. Caballero Alarcón FA, Brítez Carli R, Caballero Alarcón FA, Brítez Carli R. Inteligencia Artificial en el mejoramiento de la enseñanza y aprendizaje, Ministerio de Educación y Ciencias. Acad Asunción. 2024;11(2):99-108. http://scielo.iics.una.py/scielo.php?script=sci_abstract&pid=S2414agosto 89382024000200099&lng=en&nrm=iso&tlng=es
- (PDF) IV CONGRESO INTERNACIONAL DE INNOVACIÓN SOCIAL Y PRODUCTIVA 2023 (IV-CIISP2023) - Educational Transformation: The Implementation of Artificial Intelligence in University Teaching in Peru.. https://www.researchgate.net/publication/380263600_IV_CONGRESO_INTERNACIONAL_DE_INNOVACION_ SOCIAL_Y_PRODUCTIVA_2023_IV-CIISP2023_-_Educational_Transformation_The_Implementation_of_Artificial_ Intelligence_in_University_Teaching_in_Peru?enrichId=rgreq-957a4a40eec1e9dc4b168c444ea09521-XXX&e nrichSource=Y292ZXJQYWdlOzM4MDI2MzYwMDtBUzoxMTQzMTI4MTI0MDAzMDYyMEAxNzE0NTk3MTk3NjUw& el=1_x_3&_esc=publicationCoverPdf

- 11. Bernilla Rodriguez EB. Docentes ante la inteligencia artificial en una universidad pública del norte del Perú. Educación. enero de 2024;33(64):8-28. http://www.scielo.org.pe/scielo.php?script=sci_abstract&pid=S1019-94032024000100008&lng=es&nrm=iso&tlng=es
- 12. Duche Pérez AB, Gutiérrez Aguilar OA, Paredes Quispe FM, Duche Pérez AB, Gutiérrez Aguilar OA, Paredes Quispe FM. Satisfacción laboral y compromiso institucional en docentes universitarios peruanos. Conrado. octubre de 2019;15(70):15-24. http://scielo.sld.cu/scielo.php?script=sci_abstract&pid=S1990-86442019000500015&lng=es&nrm=iso&tlng=es
- 13. ResearchGate. (PDF) Introducción a la Investigación básica. https://www.researchgate.net/publication/341343398_Introduccion_a_la_Investigacion_basica
- 14. Zúñiga PIV, Cedeño RJC, Palacios IAM. Metodología de la investigación científica: guía práctica. Cienc Lat Rev Científica Multidiscip. 27 de septiembre de 2023;7(4):9723-62. https://ciencialatina.org/index.php/cienciala/article/view/7658
- 15. Hernández Sampieri R, Fernández Collado C, Baptista Lucio P. Metodología de la investigación. McGraw Hill España; 2014. https://dialnet.unirioja.es/servlet/libro?codigo=775008
 - 16. Estudios transversales. http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S2308-05312021000100179
- 17. Sulca Quispe YV. Competencia digital y satisfacción laboral en docentes de una Institución Educativa Pública Secundaria con Formación Técnica de Surquillo, 2023. Repos Inst UCV. 2023; https://repositorio.ucv.edu.pe/handle/20.500.12692/122679
 - 18. De Pearson a Spearman. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0120-06902007000200010
- 19. Mamani Rosas AM. Ética en la Investigación Científica: Reflexiones sobre la Conducta Responsable del Investigador. Rev Científica Salud UNITEPC. diciembre de 2023;10(2):51-2. http://www.scielo.org.bo/scielo.php?script=sci_abstract&pid=S2520-98252023000200051&lng=es&nrm=iso&tlng=es
- 20. Sánchez Rodríguez AN, Martínez Romero ME, Rodríguez Agreda CJ, Romero Saldarriaga JG, Romero Saldarriaga MA. Impacto de la inteligencia artificial en las prácticas educativas: Percepciones y actitudes del profesorado. Latam Rev Latinoam Cienc Soc Humanidades. 2024 [citado 26 de enero de 2025];5(2):45. https://dialnet.unirioja.es/servlet/articulo?codigo=9541052
- 21. Sánchez Cabrero R. Desafíos del docente en la sociedad de hoy: formación, eficacia, satisfacción laboral y afrontamiento de la pandemia Covid-19. 2022; https://gredos.usal.es/handle/10366/151395
- 22. Acosta Faneite SF, Finol de Franco M. Inteligencia artificial como mecanismo para mejorar la gestión educativa universitaria. Rev Cienc Soc. 2024;30(3):583-97. https://dialnet.unirioja.es/servlet/articulo?codigo=9800795
- 23. Percepciones de los médicos de familia sobre la aplicación de la IA en la atención primaria de salud: estudio de caso de una organización de atención médica de primer nivel PubMed. https://pubmed.ncbi.nlm.nih.gov/38875531/
- 24. Narayanan S, Ramakrishnan R, Durairaj E, Das A. Artificial Intelligence Revolutionizing the Field of Medical Education. Cureus. noviembre de 2023;15(11):e49604.
- 25. Masters K. Ethical use of Artificial Intelligence in Health Professions Education: AMEE Guide No. 158. Med Teach. junio de 2023;45(6):574-84.
- 26. Loor RGH, Mora SVN, Párraga JGD. Integración de la Inteligencia Artificial en la Educación Universitaria: Avances, Desafíos y Perspectivas. Dominio Las Cienc. 3 de septiembre de 2024;10(3):1677-96. https://dominiodelasciencias.com/ojs/index.php/es/article/view/4002
- 27. Perezchica-Vega JE, Sepúlveda-Rodríguez JA, Román-Méndez AD. Inteligencia artificial generativa en la educación superior: usos y opiniones de los profesores. Eur Public Soc Innov Rev. 29 de agosto de 2024;9:1-20. https://epsir.net/index.php/epsir/article/view/593

- 28. Sinniah S, Al Mamun A, Md Salleh MF, Makhbul ZKM, Hayat N. Modeling the Significance of Motivation on Job Satisfaction and Performance Among the Academicians: The Use of Hybrid Structural Equation Modeling-Artificial Neural Network Analysis. Front Psychol. 2022;13:935822.
- 29. Castro Rivas MI. Competencia digital y satisfacción laboral en la institución educativa emblemática "José Granda", San Martín de Porres, Lima Perú. Repos Inst UCV. 2021; https://repositorio.ucv.edu.pe/handle/20.500.12692/70709
- 30. Mallma Briceño P. Competencias digitales y la satisfacción laboral docente de una universidad privada de Huancayo, 2021. Repos Inst UCV. 2022; https://repositorio.ucv.edu.pe/handle/20.500.12692/80393
- 31. López-Regalado Ó, Núñez-Rojas N, López-Gil ÓR, Sánchez-Rodríguez J. Análisis del uso de la inteligencia artificial en la educación universitaria: una revisión sistemática. Analysis of the use of artificial intelligence in university education: a systematic review. 2024; https://riuma.uma.es/xmlui/handle/10630/35495
- 32. De Los Heros Rondenil MG, Murillo López SC, Solana Villanueva N, De Los Heros Rondenil MG, Murillo López SC, Solana Villanueva N. Satisfacción laboral en tiempos de pandemia: el caso de docentes universitarios del área de salud. Rev Econ Caribe. diciembre de 2020;(26):1-21. http://www.scielo.org.co/scielo.php?script=sci_abstract&pid=S2011-21062020000200001&lng=en&nrm=iso&tlng=es
 - 33. Inteligencia artificial en la educación médica. https://amfem.edu.mx/revista/rmem_24_11_1.pdf
- 34. Percepciones y actitudes de los estudiantes de ciencias de la salud en relación con la inteligencia artificial (IA): una revisión de alcance Derakhshanian 2024 Informes de ciencias de la salud Biblioteca en línea de Wiley. https://onlinelibrary.wiley.com/doi/10.1002/hsr2.2289
- 35. Vista de La inteligencia artificial aplicada a la gestión educativa y su incidencia en el desarrollo de las competencias docentes. https://www.revistamapa.org/index.php/es/article/view/478/760
- 36. Guerra VEB, O'Brien MIZ, Bajaña VPM, Villacrés EBR, Pacheco M de JN, Rodríguez NEC, et al. Percepciones y experiencias de docentes universitarios sobre la inteligencia artificial: transformación, ética y desafíos en el uso académico por estudiantes: Perceptions and experiences of university teachers on artificial intelligence: transformation, ethics and challenges in academic use by students. LATAM Rev Latinoam Cienc Soc Humanidades. 27 de diciembre de 2024;5(6):2763-73. https://latam.redilat.org/index.php/lt/article/view/3204
- 37. Franganillo J, Lopezosa C, Salse M. La inteligencia artificial generativa en la docencia universitaria. Inf Cent Recer En Inf Comun Cult CRICC. octubre de 2023; https://diposit.ub.edu/dspace/handle/2445/202932
- 38. Ovalles JAS. Actitudes del profesorado ante el uso y manejo de la inteligencia artificial generativa (IAG) de modo eficiente. Rev Científica Salud Desarro Hum. 5 de octubre de 2024;5(3):1183-213. https://revistavitalia.org/index.php/vitalia/article/view/325
- 39. Vista de El análisis de la percepción de los profesores respecto al uso de la Inteligencia Artificial. https://revistas.umch.edu.pe/index.php/EducaUMCH/article/view/293/730
- 40. Liu Y, Chen L, Yao Z. The application of artificial intelligence assistant to deep learning in teachers' teaching and students' learning processes. Front Psychol. 2022;13:929175.
- 41. Cabellos B, de Aldama C, Pozo JI. University teachers' beliefs about the use of generative artificial intelligence for teaching and learning. Front Psychol. 2024;15:1468900.

FINANCING

None.

CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

Conceptualization: Teresa Carolina Cacho Quiroz, Miguel Ángel Díaz Cabanillas, Rosa Milagros Vigo Quispe, Enzo Bazualdo Fiorini.

Data curation: Teresa Carolina Cacho Quiroz, Miguel Ángel Díaz Cabanillas, Rosa Milagros Vigo Quispe, Enzo Bazualdo Fiorini.

Formal analysis: Teresa Carolina Cacho Quiroz, Miguel Ángel Díaz Cabanillas, Rosa Milagros Vigo Quispe, Enzo Bazualdo Fiorini.

Drafting - original draft: Teresa Carolina Cacho Quiroz, Miguel Ángel Díaz Cabanillas, Rosa Milagros Vigo Quispe, Enzo Bazualdo Fiorini.

Writing - proofreading and editing: Teresa Carolina Cacho Quiroz, Miguel Ángel Díaz Cabanillas, Rosa Milagros Vigo Quispe, Enzo Bazualdo Fiorini.