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PERCEPTION, USE, AND USEFULNESS OF ARTIFICIAL INTELLIGENCE IN THE TEACHING TRAINING OF FUTURE FOREIGN LANGUAGE TEACHERS

PERCEPCIÓN, USO Y UTILIDAD DE LA INTELIGENCIA ARTIFICIAL EN LA FORMACIÓN DEL FUTURO PROFESORADO DE LENGUAS EXTRANJERAS

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ABSTRACT

This study explores the perception, use, and usefulness of artificial intelligence (AI) among future foreign language teachers who specialize in English teaching. The main objective was to analyze how these future professionals perceive and use AI in their undergraduate teaching training program. Furthermore, to identify the most well-known and frequently used AI tools in their classes, assignments, or projects. To achieve this, a descriptive quantitative study was conducted, gathering information using a Likert scale based on the questionnaire developed by Ayuso-del Puerto and Gutiérrez-Esteban. The sample consisted of 243 teachers in training from a Honduran university. The results show that most future teachers have a positive perception of AI, considering it clear and useful for learning, although there is a gap between this perception and its practical application. ChatGPT and Grammarly protrude as the most well-known and frequently used tools by teachers in training, while others are less utilized. Moreover, a positive trend toward AI use was identified, though additional training is needed to maximize its implementation in academic tasks. In conclusion, while AI is well-perceived among future teachers, its practical use faces challenges, particularly in prompt writing, suggesting the need for specific training programs and greater promotion of diverse AI tools in the educational environment.

Palabras clave:
inteligencia artificial, futuros docentes, lenguas extranjeras

RESUMEN

Este estudio explora la percepción, uso y utilidad de la inteligencia artificial (IA) entre futuros docentes de lenguas extranjeras con orientación en la enseñanza del inglés. El objetivo principal fue analizar cómo estos futuros profesionales perciben y utilizan la IA en su formación, así como identificar las herramientas de IA más conocidas y utilizadas en sus clases, asignaciones o proyectos. Para ello, en una investigación cuantitativa descriptiva, se recopiló información utilizando una escala de Likert a partir del cuestionario realizado por Ayuso-del Puerto y Gutiérrez-Esteban. La muestra fue conformada por 243 docentes en formación de una universidad hondureña. Los resultados muestran que la mayoría de los futuros docentes tiene una percepción positiva de y hacia la IA, considerándola clara y útil para el aprendizaje,

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	aunque existe una brecha entre esta percepción y su aplicación práctica. ChatGPT y Grammarly se destacan como las herramientas más conocidas y utilizadas por los docentes en formación, mientras que otras presentan una menor utilización. Además, se identificó una tendencia positiva hacia la utilización de la IA, aunque también se señaló la necesidad de formación adicional para maximizar su implementación en tareas académicas. En conclusión, aunque la IA es bien percibida entre los futuros docentes, su uso práctico enfrenta desafíos principalmente en la redacción de los *prompts*, lo que sugiere la necesidad de programas de formación específicos y una mayor promoción de diversas herramientas de IA en el entorno educativo.

Introduction

Over the past two decades, Artificial Intelligence (AI) has had a significant impact on various sectors globally, including education. Globally, the potential of AI has been recognized for teachers' lesson plans, personalizing learning, automating administrative tasks, and improving teaching through data analytics. However, in teacher training, especially in specialized fields such as foreign language teaching, an imbalance has been observed where considerable challenges are faced. González-Videgaray and Romero-Ruiz (2022) state that "it is very convenient to make a review of how AI is being applied to education, but, on the other hand, it is necessary to promote AI learning from basic levels" (p. 52). Across Europe, we are seeing a considerable increase in efforts to incorporate artificial intelligence into education by promoting projects to provide training for teachers on how to use these technologies. An example of this is evidenced by seeing that the Spanish Ministry of Education, Vocational Training and Sports through the National Institute of Educational Technologies and Teacher Training (2024) created a "Guide on the use of Artificial Intelligence in the Educational field." Likewise, UNESCO's International Institute for Higher Education in Latin America and the Caribbean (2023) launched the quick start guide for "ChatGPT and artificial intelligence in higher education". Although there has been progress in terms of incorporating AI in education, there are still uncertainties about the effectiveness of artificial intelligence in language teaching. In addition, some educators remain resistant to change and there is concern about over-reliance on technology at the expense of traditional pedagogical methods.

In Latin America, the implementation of artificial intelligence in education faces certain difficulties due to factors such as the lack of technological infrastructure and economic inequalities that hinder access to more advanced educational resources. Despite this, teacher training programs that incorporate the use of AI tools are being implemented in countries such as Chile, Brazil and Mexico. In this case, the Chilean government, through the Innovation Center of the Ministry of Education (2023) published the "Guide for teachers: how to use ChatGPT to enhance active learning". However, these efforts have not yet been widely expanded throughout the region. In view of this, ProFuturo and the Organization of Ibero-American States (2023) suggest that "new alliances between countries, especially in a region with as many common challenges as Latin America, could be a way to achieve convergence in the approach and use of AI in education in the coming years" (p. 44).

Honduras is also affected by these trends, although it has specific challenges to face and overcome. In the country, teacher training in foreign languages follows a traditional approach and hardly any modern technology is used with intermittent Internet access in public education institutions. Although there are individual efforts by some university professors to incorporate AI in education, there is still a lack of awareness of its usefulness and a low level of adoption by foreign language faculty. This creates a significant problem since those who train future teachers do not incorporate AI in their classes, but those who receive these professorships do use AI in their training. Therefore, it was proposed to know what was the perception and use of artificial intelligence in the training process of future teachers in the teaching of foreign languages in Honduras. It is essential to recognize and understand these dynamics in order to formulate educational strategies that take advantage of the capabilities of artificial intelligence to train future language teachers with technological competencies, adapted to the specific context of Honduras.

Given the technological boom and the imminent incorporation of Artificial Intelligence in education, several researchers have conducted studies in this field. Gragera (2024) analyzed the perception of students at the University of Las Palmas de Gran

Canaria on the use of Artificial Intelligence (AI) in learning English for specific purposes. It was developed under the qualitative approach using surveys for data collection. Thanks to the use of AI, students showed improvements in written production and in the use of technical and academic language. The importance of a more active and personalized integration of these tools is highlighted. Also, Chao-Rebolledo and Rivera-Navarro (2024) in their quantitative, cross-sectional and inferential-exploratory study with a purposive sample of a total of n=227 teachers and n=180 Mexican students highlight the main findings where it was observed that at least 20% of teachers and 33% of students already use some AI tool in their academic life. Significant differences were found between teachers and students with respect to their use of AI tools in learning. In the research by Ayuso-del Puerto and Gutiérrez-Esteban (2022), through a mixed approach using a questionnaire and Likert scale, the responses of 76 teachers in initial training who were taking the subject ICT applied to Education in the Degree in Early Childhood Education at the University of Extremadura were analyzed. The results of the study show that students believe that artificial intelligence has a positive impact on their learning process and feel capable of creating their own educational resources if they receive support and guidance from university faculty. In addition, Ríos Hernández et al. (2024) set out to know the perception of students on the use of Artificial Intelligence in higher education in three Latin American countries: Ecuador, Peru and Mexico by applying a quantitative instrument to 423 undergraduate students from three universities. The results demonstrate that the potential of AI to improve educational quality and tailor the learning process to each student is widely recognized. It also highlights the relevance of ensuring an inclusive and equitable approach when applying AI in higher education.

In contrast to other areas, in the field of artificial intelligence there is no single definition for this concept, but rather multiple perspectives according to a personal conception of the term. In 1956, during a workshop held at Dartmouth College, a leading American Ivy League university, the term 'artificial intelligence' was first coined to refer to “the science and engineering of creating intelligent machines, especially intelligent computer programs” (McCarthy et al., 2006, p. 14). UNESCO's World Commission on the Ethics of Scientific Knowledge and Technology (2019) describes AI as "machines that can mimic some abilities of human intelligence, such as perception, learning, reasoning, and problem-solving skills. In addition, they are able to interact in natural language and even generate creative work” (p. 3). For the purposes of this study, the definition of the European Parliament (2021) will be adopted where “artificial intelligence is the ability of a machine to exhibit the same capabilities as humans, such as reasoning, learning, creativity and the ability to plan” (p. 2).

Objectives

This research investigated what happens in the university educational community of future foreign language teachers oriented to teaching English or French in terms of how Artificial Intelligence is perceived, used and incorporated in the training processes, in a context where educational innovation is crucial. Thus, the main purpose of this research was to determine how undergraduate students of Foreign Languages at the National Autonomous University of Honduras perceive and use AI tools during their training as future teachers in language teaching. Additionally, to know what AI tools they use in their teaching-learning process. There is a growing demand for technological competencies in education, as well as a need to understand how these technologies can be effectively integrated, especially in language teaching. By generating knowledge about the current

attitudes and practices of future teachers with respect to artificial intelligence tools, the aim is to design more effective training programs and promote educational policies that improve the quality of teaching, providing guidance on the use of AI in education. The scientific benefit of this study lies in its contribution to the field of education and applied technology, providing empirical data that can inform future research and pedagogical theories, especially in contexts with limited resources and little or no AI integration.

Method

Approach

In this research, the descriptive type quantitative approach was implemented, taking into account the concepts established by Hernández-Sampieri and Mendoza Torres (2018), which consists of using data collection for hypothesis testing through the use of numerical measurement and statistical analysis. The design of this study was non-experimental since the research was carried out without deliberately manipulating any variable. Likewise, it was cross-sectional, since the data collection was carried out in a single moment or period of time.

Instrument

A Likert-type scale with five rating levels (1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree* and 5 = *Strongly agree*) based on the questionnaire developed by Ayuso-del Puerto and Gutiérrez-Esteban (2022) was used as a data collection instrument. The scale consisted of 16 items digitized in *Microsoft Forms*. In order to collect the data, a visit was made to each learning space during the different schedules and days that the subjects are offered for future teachers of English teaching. Before proceeding with data collection, informed consent was requested. A QR code was displayed in which participants scanned and completed the scale. The collection of information took place in the second academic period 2024 of the Universidad Nacional Autónoma de Honduras, specifically in building 1847 where the Foreign Languages Department is located.

Sample

The research subjects were students: teachers in training enrolled in the Bachelor's Degree in Foreign Languages with orientation in the Teaching of English or French at the Universidad Nacional Autónoma de Honduras. At the time of data collection, there were 660 trainee teachers enrolled in both English and French orientation. We worked with a probabilistic sample. Therefore, the *Decision Analyst* STATS™ 2.0 program was used to calculate the sample, resulting in 243 subjects to be studied. We worked with a 5 % error level and 95 % confidence level as parameters for this calculation. The data collected were entered, organized and analyzed in *Statistical Package for the Social Sciences* (SPSS) software, version 27.0. Consistency checks were performed and data were cleaned to identify and correct input errors, outliers and missing data.

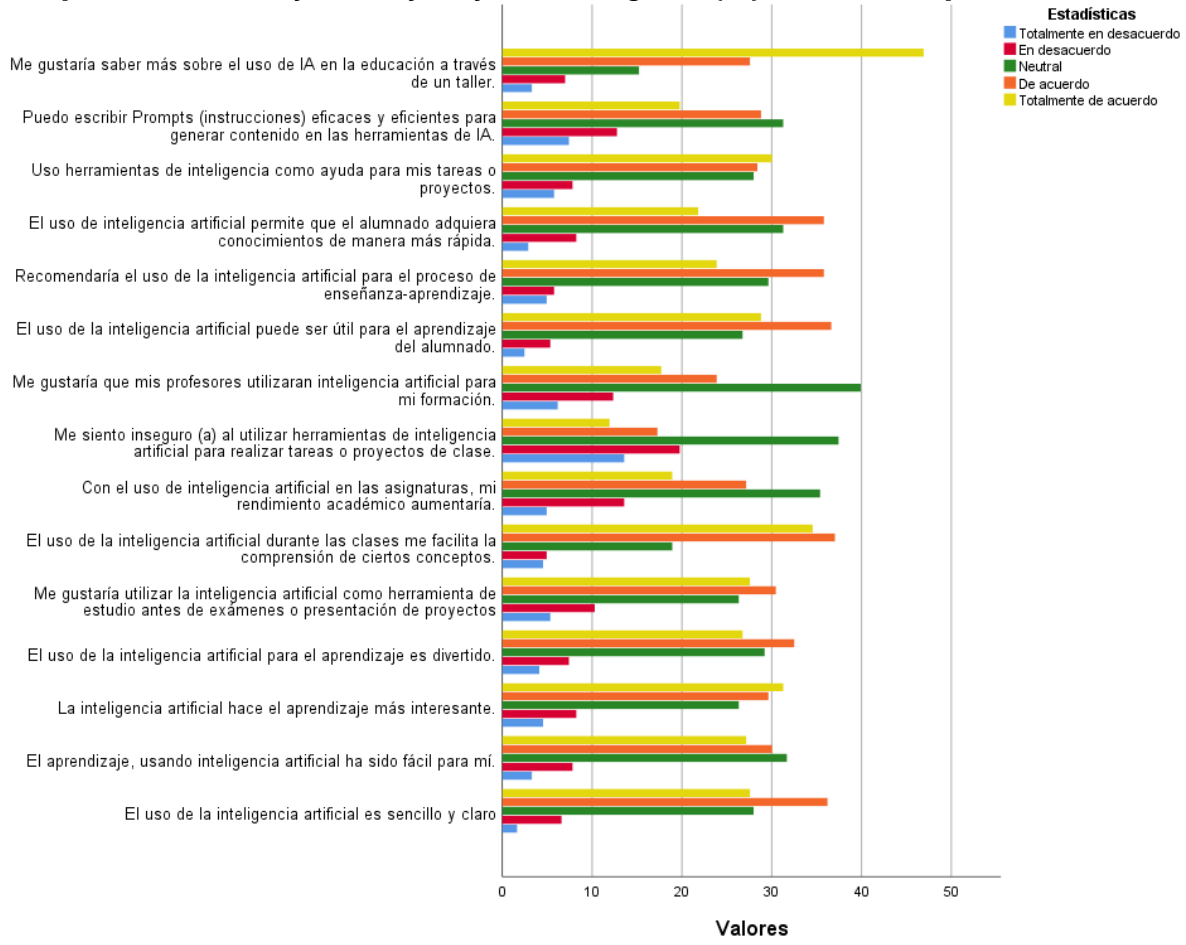
Results

The various statements of the Likert scale were analyzed both individually and as a whole according to their belonging to the variables. During the tabulation, groups were created where the different statements were housed by assigning a number to each

question as follows: perception of AI: P1, P2, P3, P4, P8 and P15; use of AI: P5, P9, P13 and P14; and, AI utility: P6, P7, P10, P11 and P12. At this stage of the process, in SPSS, a new variable was created for each group (perception, use and utility) and the average values or sums of the responses to the associated questions were used. From this, descriptive analyses were performed for the whole and subgroups of data. Moreover, the results are presented in percentages and frequencies, which makes it possible, on the one hand, to identify both the most used tools and, on the other hand, the least used ones.

Figure 1

Perception, use and usefulness of artificial intelligence (AI) in education per item



Note. Questionnaire by Ayuso-del Puerto and Gutiérrez-Esteban (2022, p. 352)

The results in Figure 1 show how participants rated their level of agreement with various statements about the use of Artificial Intelligence (AI) in education. In general, most of the responses are concentrated in the *Agree* and *Strongly Agree* levels. This indicates that, generally speaking, there is a positive perception of AI in education among respondents. For example, statements such as "The use of artificial intelligence is simple and clear" and "Artificial intelligence makes learning more interesting" show a pattern in which respondents tend to mostly *Agree* or *Strongly Agree*. Consequently, AI is seen as a comprehensive and attractive tool.

However, the statement "I feel insecure using artificial intelligence tools to perform class tasks or projects" has an opposite tendency, with a distribution more towards disagreement. This implies that, in general, insecurity when using AI is not a prevalent problem among respondents. In contrast, statements such as "I use artificial

intelligence tools to help me with my homework or projects" and "I would like my teachers to use artificial intelligence for my training" have a high concentration in *Agree*. This indicates an acceptance of the use of these tools in the academic context.

In addition, the statement "I can write effective and efficient *Prompts* (instructions) to generate content in AI tools" shows that there is a good level of confidence in the respondents' ability to interact with AI tools. However, there is a slight dispersion towards more neutral responses, which reveals some variability in the self-assessment of this skill. Regarding statements related to the usefulness of AI, such as "The use of artificial intelligence can be useful for student learning" and "I would recommend the use of artificial intelligence for the teaching-learning process," also have a high tendency toward agreement. This suggests that respondents positively value the usefulness of AI in learning.

On the other hand, the statement "The use of artificial intelligence enables learners to acquire knowledge faster" also follows this trend, indicating that respondents perceive concrete benefits in the speed of knowledge acquisition with the use of AI. Finally, "I would like to learn more about the use of AI in education through a workshop" shows a clear trend toward agreement, suggesting an interest on the part of respondents in expanding their knowledge and skills in this field. It is worth noting that this interest could be related to the need for additional training to maximize the potential of AI in education.

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Table 1

Perception, use and usefulness of artificial intelligence

	Strongly disagree	**Disagree**	**Neutral**	**Agreed**	**Totally agree**
Perception of AI	1.2 %	4.9 %	27.6 %	45.7 %	20.6 %
Use of AI	8.2 %	13.2 %	31.3 %	29.2 %	18.1 %
Utility of AI	3.3 %	9.1 %	25.1 %	37.0 %	25.5 %

The data shown in Table 1 reflect the percentages of responses for each level of agreement on a Likert scale in relation to three key variables: *perception of AI, use of AI*, and *usefulness of AI*.

First, regarding the perception of AI, only a minority of respondents have a negative perception of AI, indicating that most participants do not find major difficulties or significant negative aspects in the use of AI representing for *Strongly Disagree* 1.2 % and for *Disagree* 4.9 %. On the other hand, a considerable percentage of respondents have a neutral perception (27.6 %), indicating that, although they do not view AI negatively, they are not completely convinced of its value or usefulness either. Nevertheless, the majority of respondents (*Agree* with 45.7% and *Strongly Agree* with 20.6%) have a positive perception of AI, considering it clear and easy to use, which is an indication of acceptance and receptivity towards this technology in the educational context.

Secondly, regarding the use of AI, there is an increase in negative responses compared to the perception of AI (*Strongly Disagree* with 8.2% and *Disagree* with 13.2%). This indicates that, although respondents have a positive perception of AI, some find challenges or limitations when it comes to its practical use. On the other hand, a third of respondents took a neutral position (31.3%), indicating that the use of AI is not yet fully integrated or that not all respondents have the same confidence or experience in its use. However, although there is significant acceptance, it is lower compared to the general perception of AI. Therefore, this reflects a gap between the perception of the technology

and its practical application, suggesting the need for more training or resources to improve the implementation and effective use of AI in education (*Agree* with 29.2 % and *Strongly Agree* with 18.1 %).

Finally, with reference to the usefulness of AI, negative responses are relatively low, showing that most respondents recognize some value in the use of AI for educational purposes (*Strongly Disagree* with 3.3 % and *Disagree* with 9.1 %). In contrast, a quarter of respondents hold a *Neutral* stance (25.1%), perceiving that while they recognize the utility of AI, they may not be fully convinced of its significant impact or have not experienced its benefits in a tangible way. Finally, the majority of respondents (*Agree* with 37.0% and *Strongly Agree* with 25.5%) see AI as a useful tool in education, reflecting a significant acceptance of its potential to improve learning and academic performance. Thus, this high level of agreement underlines the perception that AI can add value to the educational process.

Table 2
Perception of AI

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Strongly disagree	3	1.2	1.2	1.2
	Disagree	12	4.9	4.9	6.2
	Neutral	67	27.6	27.6	33.7
	Agreed	111	45.7	45.7	79.4
	Totally agree	50	20.6	20.6	100.0
	Total	243	100.0	100.0	

Detailing the data analysis, Table 2 presents information related to the perception of Artificial Intelligence (AI) among respondents. 12 students (4.9%) disagreed with statements about the clarity and ease of use of AI, suggesting a slightly negative perception among a small group of respondents. A total of 67 students (27.6%) feel *Neutral* towards AI. This group does not have a strong positive or negative opinion, reflecting a lack of experience or limited use of AI. The majority of students, 111 (45.7%), have a positive perception of AI, considering it clear and easy to use, which is a positive indication of acceptance. On the other hand, 50 students (20.6%) *Strongly agree* that the AI is clear and easy to use, highlighting a strong positive perception. There is a significant difference between respondents with a positive perception of AI (66.3%, 161 students) and those with a negative perception (6.1%, 15 students). This difference establishes that most students find AI to be a clear and easy-to-use tool, although a small percentage still perceive difficulties.

Table 3
Use of AI

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Strongly disagree	20	8.2	8.2	8.2
	Disagree	32	13.2	13.2	21.4
	Neutral	76	31.3	31.3	52.7
	Agreed	71	29.2	29.2	81.9
	Totally agree	44	18.1	18.1	100.0
	Total	243	100.0	100.0	

Regarding the use of Artificial Intelligence (AI), Table 3 shows that 20 students (8.2%) have a very negative perception about the use of AI, indicating that these do not use it or encounter significant difficulties in its implementation. Likewise, 32 students (13.2%) disagreed with the use of AI, suggesting that a considerable group of students perceive barriers or drawbacks in attempting to use this technology in their learning. A total of 76 students (31.3%) are in a *Neutral* position, indicating uncertainty about how to use AI or a lack of sufficient experience to form a clear opinion about its use. Contrary to the above, 71 students (29.2%) *agree* with the use of AI, reflecting a moderate positive perception of its practical application in the educational context. And 44 students (18.1%) have a very positive perception of AI use, suggesting that they find the technology effective and useful in their learning. The existence of a considerable group of students with neutral or negative perceptions underscores the need for educational interventions, such as training workshops or orientation sessions to improve confidence and skill in the use of AI. The fact that less than 50% of students have a strong positive perception of the use of AI in their learning establishes that there is room for improvement in the integration and effectiveness of this technology in the educational environment.

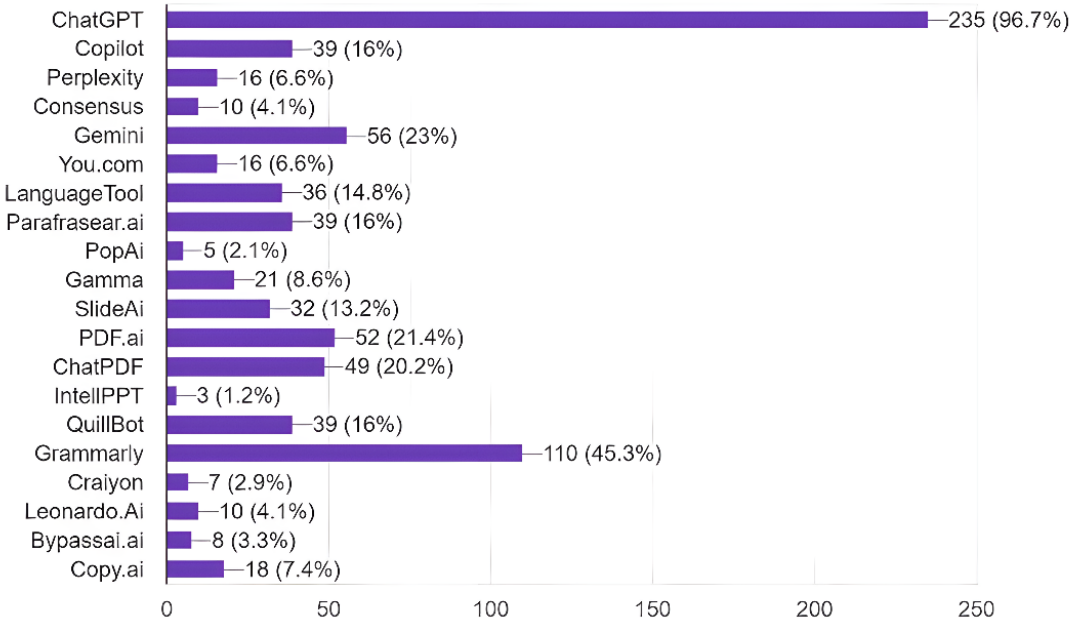
Table 4
Utility of AI

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Strongly disagree	8	3.3	3.3	3.3
	Disagree	22	9.1	9.1	12.3
	Neutral	61	25.1	25.1	37.4
	Agreed	90	37.0	37.0	74.5
	Totally agree	62	25.5	25.5	100.0
	Total	243	100.0	100.0	

In that concerning the usefulness of Artificial Intelligence (AI) as perceived by the students surveyed (Table 4), only 8 students (3.3%) believe that AI is not useful for learning, reflecting a very negative perception in a small group of respondents. Additionally, 22 students (9.1%) disagreed about the usefulness of AI, suggesting that this group of students does not find that AI brings them clear benefits in their educational

process. A total of 61 students (25.1%) have a *Neutral* stance on the usefulness of AI, indicating uncertainty about its value or insufficient experience with the technology to form a strong opinion. Now, the majority of students, 90 (37.0%), *agree* that AI is useful for learning, establishing a positive perception about the impact of AI on education. Additionally, 62 students (25.5%) *Strongly Agree* that AI is useful for learning, reflecting a very positive perception and strong acceptance of its educational value. There is a significant difference between students who perceive AI as useful (62.5%, 152 students) and those who perceive it as not useful (12.4%, 30 students). This indicates a general positive trend towards the usefulness of AI, although a minority group is not yet convinced of its value.

Figure 2
AI tools known or used by students



The results of the research on knowledge and use of AI tools, according to Figure 2, show that *ChatGPT* is the most known and used AI tool, with 96.7% of respondents having used or knowing about it, demonstrating its widespread adoption among prospective teachers. *Grammarly* is the second most recognized tool, used by 45.3% of students, indicating its popularity as a writing assistant. *Gemini* is used or known by 23% of students, placing it as a less popular but still relevant tool compared to others. *PDF.ai* is used or known by 21.4% of respondents, which places it as a moderately used tool among students. *ChatPDF* follows closely behind *PDF.ai*, with 20.2% of students having used it, indicating similar relevance in the student community. *Copilot*, Parafrasear.ai, and *QuillBot* share a similar level of recognition, with 16% of students familiar with them, suggesting moderate penetration in academia. While other tools (*Gamma*, *SlideAi*, *LanguageTool*, *Copy.ai*, etc.) show a lower popularity, with percentages ranging from 13.2% to 2.1%. This suggests that, although multiple AI tools exist, their use is less widespread. *ChatGPT* has significantly higher adoption (96.7%) compared to any other tool, while tools such as *PopAi* (2.1%) and *IntelliPPT* (1.2%) have extremely low recognition and usage. *Grammarly* (45.3%) has a remarkable recognition, which underlines the importance of tools that improve writing in the academic environment. On the other hand, the low adoption of some tools indicates the need for further promotion

or training in their use so that students can take advantage of a wider range of AI technologies.

Discussion and Conclusions

The results of this study are similar to those of previous research. For that matter, the overall perception of artificial intelligence is mostly positive among the surveyed students, with 66.3 % of them showing agreement or total agreement with statements about the clarity and ease of use of AI. This is in agreement with the study conducted by Gutiérrez and De León (2024), who found an aversion to the use of AI to a very low degree in the university environment. Likewise, 27.6% of students maintain a *Neutral* stance, suggesting a lack of conviction or sufficient experience with the use of AI, a finding that is closely related to the persistent perception of uncertainty and the need for adequate training noted by Gutiérrez Terriquez (2024). In addition, the usefulness of AI is recognized by the majority of trainee teachers, with 62.5% in agreement or total agreement on its value when using it in the teaching-learning process. This result is in line with the general perception that AI can be a useful tool to improve learning, as observed in the studies of Zamora Úbeda and Stynze Gómez (2024).

Additionally, despite the positive perception, the use of AI is less enthusiastic, with only 47.3% of prospective teachers in agreement or total agreement with its use. This denotes a gap between the positive perception of technology using AI and its practical implementation, aligning with the finding that students see AI as useful, but are concerned about its reliability and require more training to use it effectively (Gutierrez Terriquez, 2024). However, in relation to usage, while Zamora Úbeda and Stynze Gómez (2024) found that 39.8% of students use AI for research, this study does not detail the specific purpose of use, but reflects a lower overall acceptance of the practical use of AI in learning. It is clear that the perception and use of AI in the educational environment is in a stage of development and acceptance. According to Chao-Rebolledo and Rivera-Navarro (2024), 33% of students already use some AI tool in their academic life, which coincides with the results obtained in this study, where a considerable acceptance of AI tools was observed, given that each of the teachers in training at least knows or uses more than one tool that uses AI in their academic training, although with a certain level of uncertainty and neutrality in its practical use. The findings are also consistent with the observations of Gragera (2024), who notes that, although the overall perception of AI is positive, students suggest the need for more customization and frequency in the use of AI tools.

Overall, the results of this research show that prospective teachers have a favorable attitude towards the use of artificial intelligence (AI) in education, with a more specific purpose for teaching foreign languages. According to the majority of respondents, artificial intelligence is perceived as clear, simple to use and with the potential to enhance the educational experience. Despite this, a discrepancy was found between the favorable perception towards artificial intelligence and its use in practice, which implies that, although there is acceptance towards AI, challenges are faced to implement it effectively in the educational setting. One of these challenges represents the correct creation of *prompts* that must be written to obtain coherent, relevant and effective answers for any topic that is specifically consulted in ChatGPT, the tool most used by trainee teachers. In addition, lack of experience or training in the use of various artificial intelligence tools may be the cause of this gap, as one third of the trainee teachers did not show a definite stance on their use, indicating a possible lack of familiarity or confidence in the technology. This study confirms a trend towards the acceptance of AI in educational

settings with a focus on foreign language teaching, however, it highlights the imperative need for more effort to thoroughly teach how each AI should be used in education. The acceptance of artificial intelligence tools such as *ChatGPT* and *Grammarly*, which are widely used by trainee teachers, indicates that such AI tools have a clear purpose and practical use so they tend to be very well accepted and used by this group. Despite this, it can be observed that the potential of artificial intelligence in education is still not being fully exploited due to the low adoption of other tools, as future teachers focus on text generation and correction. Therefore, it is clear that additional educational interventions are required to promote the use of every AI tool that can be integrated into education.

Therefore, it is essential to develop specific training programs that not only increase the technical competence of future teachers in the use of AI, but also address perceptions and attitudes towards this type of technology, in order to optimize its potential in education. It is crucial that these initiatives focus on reducing the disparity between the positive image of AI and its use in the real world, providing trainee teachers with the necessary tools and skills to incorporate it efficiently into their educational practices. It is also advisable to encourage a wider variety of AI tools in academia by professors, to ensure that trainee teachers are not only familiar with the most commonly used ones such as *ChatGPT* and *Grammarly*, but also with others that can offer particular benefits in different axes of academic training. To achieve this, the strategy of conducting workshops and practical sessions can be considered as an effective option by implementing and following the guidelines that have been embodied in the didactic material for the incorporation of AI in education such as the "Guide on the use of Artificial Intelligence in Education" (National Institute of Educational Technologies and Teacher Training, 2024); "ChatGPT and artificial intelligence in higher education: quick Start Guide" (UNESCO International Institute for Higher Education in Latin America and the Caribbean, 2023); and "the Guide for teachers: how to use ChatGPT to enhance active learning" (Innovation Center, Ministry of Education, Government of Chile, 2023).

One of the main limitations of this study is that it focuses only on prospective foreign language teacher trainees, which does not reflect the perception and use of AI in other groups, such as teachers. Also, the study focused on a small number of AI tools, which may have affected the results by not taking into account all available technologies. In the future, complementary research may be conducted after the implementation of workshops and may include other disciplines and educational levels in order to gain a more comprehensive understanding of how AI impacts and is accepted in education. In addition, it would be interesting to investigate how the incorporation of AI into the academic curriculum and its use by professors can impact the academic performance and motivation of trainee teachers. Finally, it is necessary to explore how the use of artificial intelligence can be personalized and adjusted to meet the particular needs of students and optimize their educational experience.

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