PROFESSIONAL TECHNICAL EDUCATION AND ARTIFICIAL INTELLIGENCE: A POSSIBILITY IN THE PEDAGOGICAL WORK OF A STATE PUBLIC SCHOOL IN RAPOSA-MA

EDUCAÇÃO TÉCNICA PROFISSIONAL E INTELIGÊNCIA ARTIFICIAL: UMA POSSIBILIDADE NO FAZER PEDAGÓGICO DE UMA ESCOLA PÚBLICA ESTADUAL EM RAPOSA-MA

EDUCACIÓN TÉCNICA PROFESIONAL E INTELIGENCIA ARTIFICIAL: UNA POSIBILIDAD EN EL TRABAJO PEDAGÓGICO DE UNA ESCUELA PÚBLICA ESTATAL DE RAPOSA-MA

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ABSTRACT

This work originated from a bibliographic study on Youth and Adult Education (EJA) integrated with Vocational Technical Education (EJATEC) and the use of Artificial Intelligence (AI) in the pedagogical process of a state public school. The research aimed to analyze the possibilities and challenges of using Artificial Intelligence (AI) in vocational technical education. The methodology used was a bibliographical study and the author's experience report. The integration of Artificial Intelligence (AI) and Vocational Technical Education (EJATEC) provided valuable insights into the application of AI in the educational context. The study revealed that the inclusion of AI in education can offer a diverse range of resources that facilitate and enrich the pedagogical process. Notable among these resources are personalized teaching, which allows for meeting the specific needs of each student; instant feedback, which assists in correcting errors in real time; data analysis, which helps identify difficulties and learning gaps; and the optimization of teaching time in the development of teaching plans and resources. These technological advances have the potential to make learning more accessible, adaptive, and efficient, fostering a more dynamic and inclusive educational environment. However, it is essential that the teaching time for each subject be optimized and well-planned to minimize challenges that may arise throughout the teaching and learning process. The strategic implementation of AI can, therefore, transform technical education, making it more effective and aligned with contemporary demands.

Keywords: EJA. EJATEC. Artificial Intelligence. Pedagogical Practice.

RESUMO

Este trabalho originou-se de um estudo bibliográfico sobre a Educação de Jovens e Adultos EJA integrada à Educação Técnica Profissional EJATEC e a utilização da Inteligência Artificial IA no fazer pedagógico de uma escola pública estadual. A pesquisa teve como objetivo analisar as possibilidades e desafios do uso da Inteligência Artificial (IA) na educação técnica profissional. A metodologia utilizada foi estudo bibliográfico e relato de

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experiência da autora. A integração da Inteligência Artificial IA e a Educação de Jovens e Adultos Técnica Profissional proporcionou *insights* valiosos sobre a aplicação da IA no contexto educacional. O estudo realizado revelou que a inserção da IA na educação pode oferecer uma gama diversificada de recursos que facilitam e enriquecem o processo pedagógico. Dentre esses recursos, destacam-se a personalização do ensino, que permite atender às necessidades específicas de cada aluno; o *feedback* instantâneo, que auxilia na correção de erros em tempo real; a análise de dados, que ajuda a identificar as dificuldades e as lacunas de aprendizado e a otimização do tempo pedagógico na elaboração do planejamento e dos recursos didáticos. Esses avanços tecnológicos têm o potencial de tornar a aprendizagem mais acessível, adaptativa e eficiente, promovendo um ambiente educacional mais dinâmico e inclusivo. No entanto, é fundamental que o tempo pedagógico de cada disciplina seja otimizado e bem planejado, a fim de minimizar os desafios que possam surgir ao longo do processo de ensino e aprendizagem. A implementação estratégica da IA pode, portanto, transformar a educação técnica, tornando-a mais eficaz e alinhada às demandas contemporâneas.

Palavras-chave: EJA. EJATEC. Inteligência Artificial. Fazer Pedagógico.

RESUMEN
Este trabajo se originó a partir de un estudio bibliográfico sobre la Educación de Jóvenes y Adultos (EJA) integrada con la Educación Técnico Profesional (EJATEC) y el uso de la Inteligencia Artificial (IA) en el proceso pedagógico de una escuela pública estatal. La investigación tuvo como objetivo analizar las posibilidades y los desafíos del uso de la Inteligencia Artificial (IA) en la educación técnico profesional. La metodología utilizada fue un estudio bibliográfico y el informe de experiencia del autor. La integración de la Inteligencia Artificial (IA) y la Educación Técnico Profesional (EJATEC) proporcionó información valiosa sobre la aplicación de la IA en el contexto educativo. El estudio reveló que la inclusión de la IA en la educación puede ofrecer una gama diversa de recursos que facilitan y enriquecen el proceso pedagógico. Entre estos recursos se destacan la enseñanza personalizada, que permite satisfacer las necesidades específicas de cada estudiante; la retroalimentación instantánea, que ayuda a corregir errores en tiempo real; el análisis de datos, que ayuda a identificar dificultades y brechas de aprendizaje; y la optimización del tiempo de enseñanza en el desarrollo de planes y recursos didácticos. Estos avances tecnológicos tienen el potencial de hacer que el aprendizaje sea más accesible, adaptativo y eficiente, fomentando un entorno educativo más dinámico e inclusivo. Sin embargo, es fundamental optimizar y planificar adecuadamente el tiempo de enseñanza de cada asignatura para minimizar los desafíos que puedan surgir durante el proceso de enseñanza y aprendizaje. Por lo tanto, la implementación estratégica de la IA puede transformar la educación técnica, haciéndola más eficaz y alineada con las demandas actuales.

Palabras clave: EJA. EJATEC. Inteligencia Artificial. Práctica Pedagógica.

1 INTRODUCTION

The use of Artificial Intelligence (AI) in education has been an increasingly relevant topic in recent years. In Brazil, the National Common Curriculum Base – BNCC (Brazil, 2017) highlights the importance of the critical use of technology as one of the essential skills for high school students. This document emphasizes that students must be able to use technologies critically, ethically and responsibly, that is, it is not enough to be literate, it is necessary to reflect on the use and its possibilities and challenges.

In this context, the present academic work aims to analyze the possibilities and challenges of using AI in the professional technical education of young people and adults, identifying and investigating how it can be used to facilitate pedagogical action, making teaching more effective, efficient and personalized, preparing students to meet the current demand of the labor market.

The relevance of the topic is justified by the need to prepare young people and adults for the 21st century job market, which requires skills in emerging technologies, such as AI. In addition, the work also contributes to identifying assertive pedagogical practices aimed at the EJATEC student community, minimizing school dropout in this teaching modality.

In this sense, the research problem is summarized in the following question: What are the possibilities and challenges of using Artificial Intelligence (AI) in Youth and Adult Education Integrated with Professional Education - EJATEC?

The general objective of this research was to analyze the possibilities and challenges of the use of Artificial Intelligence (AI) in Youth and Adult Education Integrated with Professional Technical Education-EJATEC.The specific objectives were: to identify the main AI technologies used in Youth and Adult Education Integrated to Professional Technical Education in a state public school; and to investigate the possibilities and challenges of using AI in the pedagogical action of teachers.

The work was structured in 7 chapters. Chapter 1 was the introduction. In chapter 2, the methodology adopted in the research was presented, which is characterized by a bibliographic study and the author's experience report. From the literature review, legal frameworks related to EJA, EJATEC and theoretical and practical aspects related to the use of AI in education were analyzed. Additionally, the author shares her practical experience with the topic addressed, enriching the analysis with personal observations and reflections.

Chapter 3 dealt with Youth and Adult Education (EJA) through the analysis of EJA as an educational modality aimed at the school inclusion of individuals who, for various reasons,

were unable to complete basic education in the appropriate time. To this end, a review of legal documents that structure and guide EJA was carried out, contextualizing it in the Brazilian educational scenario and highlighting the role of EJATEC within this context. Technical-Professional Education Integrated to EJA (EJATEC) is approached as a specific modality of teaching that integrates basic education with technical-professional training, aiming to meet the demands of an adult population, which, in addition to seeking the completion of basic education, also needs professional qualification. The analysis is based on legal documents and theoretical references that support EJATEC, understanding it as a strategy for the educational and professional inclusion of young people and adults.

Chapter 4 deals with Artificial Intelligence in Education, examining the use of Artificial Intelligence (AI) in the educational context, focusing on its didactic and implementation in EJATEC. The potentialities and challenges of using AI as a pedagogical tool were discussed, considering its implications for the teaching-learning process and for teaching practice.

Chapter 5 was the experience report addressing the use of AI, the author's experience with the use of AI in second stage classes of a state public school was recorded. The experience is analyzed in the light of the methodology discussed above, highlighting the impacts of AI on didactic action and student performance.

In chapter 6, the final considerations of the study were presented, reflecting on the main findings of the research, the contributions of AI to the education of young people and adults, and the future perspectives for the application of this technology in EJATEC.

Chapter 7 gathered the bibliographic references used throughout the research, according to the APA standards, offering the theoretical basis that supported the analysis and the arguments presented.

2 METHODOLOGY

The methodology used in this academic study was Bibliographic Research, a type of research or study that involves the analysis and interpretation of existing texts and/or documents on a particular theme or subject. For Lakatos and Marconi (2022, p. 123), "the bibliographic study is a research technique that consists of analyzing and interpreting the work already carried out on a given topic". In this perspective, it was sought to identify the concepts and models of artificial intelligence studied and used in the school, highlighting their contributions and the challenges encountered in the pedagogical practice of teachers. Gil

(2019, p. 156) corroborates by stating that "the identification of concepts, theories and models related to the theme are elements that characterize bibliographic research".

Therefore, bibliographic research is a type of investigation that involves the analysis and interpretation of existing texts and documents. This approach allows the researcher to analyze the historical evolution of the theme and the contributions of the main authors. This methodology is supported by a qualitative approach, which is a methodological approach that seeks to understand and interpret social and cultural phenomena in a deep and detailed way.

According to Gil (2019, p. 156), "the qualitative approach is a form of research that seeks to capture the complexity and richness of social phenomena". This approach is characterized by the collection and analysis of non-numerical data, such as texts, images, and observations. The combination of bibliographic research with a qualitative approach and appropriate research instruments constitutes an effective tool to carry out an in-depth and detailed analysis of a theme or subject.

Research instruments are tools used by the researcher to collect and analyze data. In this work, the research instrument used was a survey of the literature in books and scientific journals produced in the last five years addressing the use of Artificial Intelligence - AI in education in Youth and Adult Education (EJA). The database consulted was *google* scholar, using the following keywords: EJA, EJATEC, Artificial Intelligence and pedagogical doing.

Deepening the discussion, the research was complemented with an Experience Report of the author in the role of pedagogical coordinator, on teaching practices using AI in the EJATEC of a state public school in the municipality of Raposa, metropolitan region of São Luís in the state of Maranhão.

The school operates in two distinct spaces, located in both rural and urban areas. In both units, there is a limited availability of material and technological resources for teachers. In addition, the internet signal is unstable, which leads teachers to resort to their own equipment, such as projectors, notebooks and mobile data. In this context, students' cell phones are incorporated as didactic tools, becoming resources for classroom activities.

The school curriculum is structured on two fronts: the common base, composed of teachers licensed in the areas and curricular components established by the National Common Curricular Base (BNCC), and the technical base, formed by teachers graduated in the specific areas of technical courses. In total, 30 teachers work in the EJATEC modality, of which 10 are part of the technical base and participate in this study, teaching disciplines in

the Technical-Secondary courses in Administration and Human Resources in the classes of II stage.

The report is based on the participant observation carried out by the author. According to Campos et al. (2021), this technique is essential, as it allows the apprehension of various situations or phenomena that cannot be accessed exclusively through questioning. This occurs because the researcher, by immersing himself in the daily life of the culture studied, directly experiences its dynamics and nuances. In this sense, the participating observer is not limited to the role of spectator, but is inserted in the researched community, which provides him with a deeper understanding of his habits, attitudes, interests, interpersonal relationships and characteristics of daily life. It was in this context that the present study was developed.

3 YOUTH AND ADULT EDUCATION

Youth and Adult Education (EJA) is currently regulated by the Law of Guidelines and Bases of National Education – LDBEN, Law No. 9,394/96 and by Resolution 01/2021, which establishes the National Curriculum Guidelines for Youth and Adult Education (Brasil, 2021).

According to the LDB, EJA is intended for those who did not have access to or continuity of studies at their own age (Brasil, 1996). Resolution 01/2021, in turn, reinforces the need for comprehensive training that includes theoretical and practical knowledge (Brasil, 2021).

Dialoguing with Cruz and Moreno (2023, p. 10), it becomes evident that "educational action must prioritize valuing the subjects involved" in the process, recognizing their experiences, needs, and potentialities. Young people and adults who seek school bring with them life stories full of challenges and learning that need to be considered in pedagogical planning. Thus, the educator plays a necessary role in mediating knowledge in a contextualized way, promoting training that not only covers technical and academic aspects, but also fosters the autonomy and citizenship of students.

In this sense, the school becomes a space of transcendence, in which the knowledge constructed goes beyond the limits of everyday life, as Cruz and Moreno (2023) point out. Education, therefore, assumes a transformative role, promoting inclusion and expanding the opportunities for social and economic insertion of students. Young people and adults see in school the possibility of resignifying their life trajectories, conquering a place of protagonism

in society. This construction is not only individual, but collective, as interactions in the school environment favor significant exchanges that enrich the learning process.

Thus, it is necessary that pedagogical practices are based on dialogue, active listening and respect for the specificities of each subject. The educator needs to understand that the construction of knowledge goes beyond the transmission of contents; It involves the creation of bonds and the recognition of the demands and potentialities of students. Based on this, teaching is consolidated as an instrument capable of breaking down barriers, providing conditions for individuals to transcend the limited context and reach new horizons. Thus, the school fulfills its social function, promoting a truly emancipatory education (Cruz and Moreno, 2023).

In this context, EJA is a modality that has its historical roots in the effort to include the educational of people who, for different reasons, did not have access to or could not complete basic education at the appropriate age. Since the beginning of the twentieth century, EJA was conceived as a means of reducing illiteracy, a reality that became evident with urban growth and the need for qualified labor.

Historically, the concern with adult education in Brazil began to consolidate in the 1940s, with initiatives such as the Basic Education Movement (MEB) and the literacy campaigns led by figures such as Paulo Freire, who highlighted the importance of education as an instrument of liberation and social emancipation, proposing a dialogical and critical literacy method that valued the students' prior knowledge (Cruz & Moreno, 2023).

In the 1960s, the Brazilian government intensified efforts with the National Literacy Program, conceived by Freire, but interrupted by the military regime established in 1964. During this period, the educational approach adopted by the government prioritized technicist literacy, moving away from liberating methodologies. In the following decades, especially in the 1980s and 1990s, EJA began to reorganize itself in response to social pressures and the redemocratization of the country. The promulgation of the Federal Constitution of 1988 represented a milestone, by guaranteeing education as a right for all, determining the responsibility of the State in the eradication of illiteracy and access to education at all levels (Cruz & Moreno, 2023).

EJA was in fact consolidated as a right guaranteed by the Law of Guidelines and Bases of National Education - LDB, Law No. 9394/96 (Brasil, 1996), which regulates basic education and defines EJA as a modality aimed at young people and adults who, due to some obstacle in their journey, did not have access or could not continue their studies at the regular age, or

at the right age. Therefore, according to the LDB (Brasil, 1996), EJA should be offered in the stages of elementary and secondary education, contemplating both basic education and professional qualification.

In this sense, LDB No. 9.394/96 ensures the right to education for those who have not completed basic education at the appropriate age (Brasil, 1996). According to CEB/CNE Opinion No. 11/00, EJA has three fundamental functions: repairing, equalizing and qualifying. The reparative function recognizes the social debt of the State to individuals who did not have access to formal education. The equalizing function seeks to reintegrate students into the educational system and the labor market, while the qualifying function aims to provide an education that allows the subject to transform his or her reality through the knowledge acquired (Brasil, 2000).

In this perspective, the Brazilian government implemented specific policies to strengthen EJA, such as the Literate Brazil Program, which sought to reduce illiteracy rates and ensure the continuity of studies for young people and adults. Another relevant milestone in the consolidation of the right to education in the country was the change promoted by Constitutional Amendment No. 59/2009, which modified article 208 of the Federal Constitution of 1988.

According to article 208, item I, after being amended by Amendment No. 59/2009, it is the duty of the State to guarantee "compulsory and free basic education from 4 (four) to 17 (seventeen) years of age" (Brasil, 2009), in addition to ensuring free provision for those who did not have access to education in the appropriate age group. With this change, the State's responsibility to provide education was expanded, seeking to cover a wider public and ensure the continuity of studies for those who, due to social vulnerabilities, school dropout, or other situations, did not complete basic education at their regular age (Brasil, 1988).

This change in the Constitution reflects a continuous movement to expand the right to education, integrating EJA as a modality that must be offered in order to correct distortions and promote inclusion. The Law of Guidelines and Bases of National Education (LDB) 9394/96 reinforces this perspective, defining EJA as part of basic education and determining the need for actions that ensure its implementation in the different stages of education.

In 2021, Resolution CNE/CEB No. 01/2021 was published, establishing the National Curriculum Guidelines for Youth and Adult Education, with an emphasis on comprehensive, technical, and professional training. This resolution recognizes EJA as a complex modality,

which requires differentiated pedagogical strategies and the use of educational technologies for the personalization and flexibility of teaching (Brasil, 2021).

In this way, EJA is structured based on a legal basis that reinforces the right to quality education, considering the peculiarities of this type of education and the diverse contexts of students. The current legislation provides for an education that is focused on citizenship and the development of skills and abilities that favor the social and productive insertion of students. Therefore, EJA in Brazil is ensured by a set of legal provisions that aim to guarantee access to education for all those who, for different reasons, reaffirming our statement, were unable to complete basic education at the appropriate age.

In addition, CNE/CEB Resolution No. 1/2021, which establishes the National Curriculum Guidelines for EJA, emphasizes that the curriculum of this modality must be flexible and adapted to the specificities of students, enabling the construction of training paths that include not only basic education, but also technical and professional qualification (Brasil, 2021). This approach seeks to respond to the demands of contemporary society, providing comprehensive training aimed at developing the skills necessary for citizenship and the labor market.

CNE/CEB Resolution No. 01/2021 aims to guide the pedagogical, curricular and administrative organization, ensuring inclusive and quality education. This legislation has six central points: a) curricular flexibility and personalization of teaching; b) articulation between basic education and professional training; c) recognition of knowledge and experiences; d) digital inclusion and use of technologies; e) reception and permanence policies; f) procedural and formative evaluation.

Let us see what each point mentioned above is about:

a) *Curricular flexibility and personalization of teaching* - the personalization of teaching is one of the pillars for the construction of an EJA that meets the specificities of students, respecting their previous experiences and promoting contextualized and meaningful learning. In this sense, educational institutions must adopt diversified and innovative methodologies that encourage the active participation of students;

b) *Articulation between basic education and professional training* - the EJA curriculum should contemplate the possibility of integrating professional qualification courses, aiming to expand opportunities for insertion in the labor market and the increase of schooling. Vocational training integrated with basic education is a strategy to enable young people and adults to develop skills for both social and productive life;

c) *Recognition of knowledge and experiences* - valuing the previous knowledge of EJA students, a characteristic that is aligned with the principle of lifelong learning. The guidelines encourage schools to carry out processes of recognition and certification of knowledge acquired throughout life, providing students with the possibility of validating their previous experiences and accelerating the completion of stages of basic education;

d) *Digital inclusion and use of technologies* - recognizes the importance of digital inclusion and the use of educational technologies in EJA. The use of technological tools is pointed out as a strategy to expand student access and permanence, as well as to promote more dynamic and interactive learning. In this context, the adoption of methodologies based on Digital Information and Communication Technologies (DICT) is encouraged as a means of democratizing knowledge and facilitating the teaching-learning process;

e) *Reception and permanence policies* - need for institutional policies for the reception, permanence and monitoring of EJA students. The public served by this type of education often faces challenges such as returning to school after long periods of absence and reconciling studies with work and family responsibilities. Thus, it is essential that educational institutions promote pedagogical and social support actions, aiming to ensure the permanence and success of students;

f) *Procedural and formative evaluation* - the construction of evaluation practices that go beyond the mere measurement of results, stimulating the development of competencies and skills in a critical and reflective way.

In this way, we resume Resolution CNE/CEB No. 01/2021 that guides educational policies and practices in EJA, reinforcing the need for inclusive, contextualized education focused on the needs of students. Valuing students' life experiences, curricular flexibility, articulation with professional training and the use of technologies are fundamental points for the realization of the right to education for young people and adults.

3.1 TECHNICAL AND PROFESSIONAL EDUCATION INTEGRATED WITH YOUTH AND ADULT EDUCATION

Youth and Adult Education integrated with Professional and Technological Education (EJATEC) is a teaching modality that articulates general training, preparation for the world of

work, and specific technical training (Brasil, 2021). In this way, it enables students to reconcile the knowledge of the curricular components of the National Common Curricular Base – BNCC (Brazil, 2018) with the technical knowledge of each course, promoting integrated professional qualification in High School.

Decree No. 5,154/2004 brought us a significant restructuring of Professional and Technological Education in Brazil, organizing it into courses and programs that expanded the possibilities of training for workers and students. According to the legal text, this modality now covers three main fronts: the initial and continuing training of workers, essential for the improvement of professional skills and abilities; technical professional education at the secondary level, which can be developed in an integrated manner, concomitant with or subsequent to secondary education; and technological professional education, aimed at the undergraduate and graduate levels (Brasil, 2004). This organization aims to meet the demands of the labor market and promote professional qualification articulated with basic and higher education.

The proposal presented by the decree highlights the importance of flexible education adapted to the different trajectories and needs of students. By enabling the articulation between technical training and secondary education, either in an integrated approach or through parallel courses, the model favors the construction of educational paths that expand the opportunities for insertion in the labor market. In addition, the inclusion of undergraduate and graduate technological courses strengthens the link between education and innovation, promoting the training of qualified professionals to work in strategic sectors of the economy. Thus, Decree No. 5,154/2004 sought to reaffirm the commitment to inclusive education aimed at Brazilian social and economic development.

Decree No. 5,840/2006 expanded the scope of professional education by including elementary education in the Program for the Integration of Professional Education with Basic Education in the Youth and Adult Education Modality (PROEJA). This initiative began to include courses and programs aimed at the initial and continuing training of workers and technical professional education at the secondary level (Brasil, 2006). The main proposal of PROEJA was to articulate professional training with basic education, promoting the increase in the education of workers and enabling their qualification for the exercise of technical professions, either through integrated training, concomitant or subsequent to high school.

After the implementation of PROEJA, the Federal Network of Professional Education, as well as state and municipal public institutions and entities linked to the union system,

began to offer technical courses integrated with high school in the EJA modality. This measure expanded the schooling opportunities of young people and working adults, responding to the need to reconcile education and the labor market. The institutions of the Federal Network, recognized for their expertise in training adolescents for the world of work, faced the challenge of adapting their practices to the specificities of the EJA public. With this, PROEJA has consolidated itself as a strategic policy for social inclusion and professional qualification, reaffirming the commitment to the education of young people and adults in Brazil.

Law No. 11,741/2008 consolidated the articulation between Youth and Adult Education (EJA) and Professional Education, promoting significant changes in articles 37, 39, 41 and 42 of the Law of Guidelines and Bases of National Education (LDB), No. 9,394/96. Among these changes, the inclusion of § 3 in article 37 was highlighted, which establishes that EJA should, preferably, be articulated with professional education. In the same sense, article 39 reinforces that professional and technological education can be integrated into different levels and modalities of education, as well as the dimensions of work, science and technology (Brasil, 2008).

These changes reflect the concern to align the educational training of young people and adults with the demands of the labor market and scientific and technological development. Another important milestone in 2008 was the enactment of Law No. 11,892, on December 29, which established the Federal Network of Professional, Scientific and Technological Education and created the Federal Institutes of Education, Science and Technology. This law included PROEJA as one of the teaching modalities to be offered by the Federal Institutes, with technical courses at the secondary level aimed preferably at young people and adults completing elementary school (Brasil, 2008).

Complementing these initiatives, Resolution CNE/CEB No. 3, of June 15, 2010, established operational guidelines for EJA, addressing aspects such as the duration of the courses, minimum age for entry, certification in exams and the possibility of developing the modality through Distance Education - EaD (Brasil, 2010). These legislative advances reinforced the commitment to educational inclusion and professional qualification of young people and adults in Brazil.

In 2012, Resolution No. 6, of September 20, established the National Curriculum Guidelines for Technical Professional Education at the Secondary Level, reaffirming the commitment to the integration between professional and technological education and the different teaching modalities. According to Article 4, this modality must be articulated with

Secondary Education, including Youth and Adult Education (EJA), in addition to connecting to the dimensions of work, technology, science and culture (Brasil, 2012). This integration aims to align technical training with the needs of the labor market and the sociocultural context of students, promoting an education that enables both professional practice and the development of civic and cultural skills. The Resolution represents a significant advance in the alignment between basic and professional education, ensuring that students have access to a broad and integrated education.

In this context, the integration of EJA into Professional and Technological Education (EPT), according to Law No. 11,741/08, expands the possibilities of training the individual, fostering autonomy, trust and active participation in society (Brasil, 2008). In addition, the National Curriculum Guidelines for EFA, established in 2020 by CNE/CP Opinion No. 07/20, reinforce the relevance of EFA for the country's social and economic development (Brasil, 2020).

As of 2021, with the implementation of the New High School, established by Law No. 13,415/17, the curricular structure of EJA began to contemplate EFA as a guaranteed right, being inserted as the fifth training itinerary, aimed at technical and professional training (Brasil, 2017). Thus, EJATEC presents itself as a viable alternative to meet the demands of the world of work, considering work as a fundamental educational principle for the integral formation of subjects.

The guidelines that guide EFA are set out in CNE/CP Resolution No. 1/21, which defines the principles and criteria that must be followed by education systems and educational institutions, both public and private, for the organization, planning, and evaluation of EFA, both in the face-to-face and distance modalities (Brasil, 2021).

Within the scope of EJATEC, the interrelationship between education and work is one of the greatest challenges, since work is understood as a structuring axis of the individual's education, allowing the construction of his social and economic identity. In addition, this teaching modality proposes seven essential competencies to guide the training of students and support the work of educators, consolidating education as a fundamental right for all.

EJATEC's competencies are based on valuing the diversity of cultural knowledge and experience, promoting the construction of its own and institutionalized knowledge about the physical, social and cultural world. This approach allows for a deeper understanding of the realities surrounding students, stimulating their integral education. We are based on (Chiamarelli et al., 2021, p 29), to describe the aforementioned competencies:

The ability to formulate and solve problems is another essential aspect. EJATEC encourages the search for solutions, including technological ones, using science approaches, such as investigation, reflection, critical analysis and creativity. This process favors dialogue between different areas of knowledge and respects local and regional traditions.

Empathy, dialogue, cooperation and argumentation are fundamental principles for harmonious coexistence. EJATEC promotes respect for diversity and human rights, encouraging ethical and responsible postures, based on facts, information and reliable evidence.

Communication plays an essential role in the training of students, who must be able to use different languages, such as verbal, spatial, artistic, mathematical and scientific. Digital Information and Communication Technologies (ICTs) are also encouraged, allowing efficient expression in environmental, social, political, economic and technological contexts, always valuing the identity elements of each individual.

Self-knowledge, autonomy and responsibility are fundamental aspects for personal and professional development. EJATEC encourages the recognition of students' physical and emotional identity, considering the social and political dimension, including ethnic-racial, gender and social class aspects. In addition, it seeks to promote autonomous and responsible actions, based on ethical, democratic and solidary principles.

The relationship between work and life project is widely addressed, encouraging critical analysis of the dynamics of the world of work. EJATEC guides students in making decisions aligned with their life project and the exercise of citizenship, valuing the diversity of artistic-cultural practices at local, regional and global levels.

Therefore, the understanding of work as an educational principle is essential for citizenship formation. EJATEC reinforces the importance of equity and proactivity, encouraging collaboration and commitment to creative practices of cultural, organizational and entrepreneurial value. In this way, the training of students is aligned with social demands and the development of skills necessary for professional and personal life, requiring curricular articulation.

Chiamareli et al. (2021, p.32) state that "curricular articulation in practice requires structured and collaborative planning, in which teachers from the propaedeutic and professional areas act together" in the construction of the teaching and learning process to ensure the development of the competencies mentioned above. The implementation of an integrated curriculum requires a constant dialogue between teachers, allowing the

convergence of knowledge and methodologies. In this way, the articulation between theory and practice becomes more effective, ensuring that the knowledge acquired by students is contextualized and applicable to the educational and professional reality.

In the context of Youth and Adult Education with Technical Training (EJATEC), the curricular articulation must consider the integral development of students, going beyond the simple transmission of content. For this, it is essential to adopt a reflective approach to teaching practice, based on interdisciplinarity and transdisciplinarity, promoting significant connections between different areas of knowledge. This perspective favors the contextualization of knowledge and the alignment of learning with the demands of the world of work and society.

In addition, the curricular structuring must contemplate both the learning necessary for general training and the fundamental technical skills for the student's professional training. In this sense, it is necessary to consider the profile of the graduate and the creation of didactic strategies that favor the articulated development of competencies and skills. In this way, the integrated curriculum enables a more complete education, preparing students for professional and academic challenges, while strengthening their autonomy and critical capacity.

4 ARTIFICIAL INTELLIGENCE AND EDUCATION

Artificial Intelligence (AI) is a set of technologies that allow the simulation of human cognitive processes, expanding the possibilities of personalization and efficiency in teaching. It is not synonymous with consciousness or an artificial mind that rivals the human one. Instead, it is defined as a set of techniques and algorithms that allow machines to perform tasks that were previously considered exclusive to humans. These tasks can range from recognizing patterns in large volumes of data to making complex decisions (Kaufman, 2020).

Corroborating this thought, Bottentuit (2020) highlights the use of mobile and AI technologies in building a more dynamic and adaptable learning environment. In other words, it is an efficient support tool to boost education, making teaching at all levels more dynamic and personalized.

The use of AI in education has stood out as a facilitating tool in pedagogical work, providing support to teachers in the preparation of lesson plans, teaching materials, and innovative methodological strategies. According to Bottentuit (2021), AI can assist in the personalization of teaching, adapting content according to the level of understanding of

students. In addition, it can contribute to the diversification of pedagogical practices, incorporating active methodologies and interactive digital resources. Kaufman (2020) points out that AI allows the automation of bureaucratic tasks, allowing the teacher to focus on activities with greater pedagogical impact. Thus, technology becomes an ally in optimizing teaching time, ensuring greater efficiency in the planning and development of classes.

In the context of Youth and Adult Education (EJA) and technical education, AI can play a key role in adapting content to different student profiles. The personalization of learning, based on data analysis, enables the development of specific strategies to meet the needs of students, promoting greater inclusion and engagement.

According to Bottentuit (2021), digital resources can facilitate the understanding of abstract concepts such as gamification, various strategies and tools, and interactive tutorials. In this same direction, Kaufman (2020) emphasizes that AI can assist in the construction of adaptive learning paths, allowing students to advance at their own pace. In this way, the use of these technologies in EJA and technical education can contribute to the reduction of school dropout and the improvement of pedagogical practices.

In addition to support in the classroom, artificial intelligence can assist in educational management and academic research, optimizing administrative and academic processes. AI-based tools enable the automation of tasks such as the preparation of institutional communications, the creation of evaluative questionnaires, and the analysis of student performance. According to Bottentuit Júnior (2021), the use of AI in pedagogical management allows for greater efficiency in school organization and planning, reducing the workload of educators. In the field of research, Kaufman (2020) highlights that AI can contribute to the production of scientific articles, helping in the search for references, textual revision, and formatting according to academic standards. Thus, the incorporation of AI in education not only improves the quality of teaching, but also strengthens teaching performance and academic production.

Therefore, AI provides research, search for information, make summaries of long texts without losing the main idea, transform a sequence of listed information into a text organized in paragraphs obeying ABNT listing references, solve a complex problem through mathematical reasoning, solving and explaining the calculation basis, generate and interpret images, suggestions for plans and didactic projects, producing games, etc., these are *facilitating insights* for teachers' pedagogical action based on the critical and conscious use of digital tools.

All this is only possible if the user has intentionality and masters the system he operates and has prior knowledge to make a critical analysis of the content returned in his research. Giraffa and Santos (2023) point out that AI has the potential to offer all the facilitations and contributions pointed out throughout our text because it has a vast repertoire of contributions available in this area.

4.1 POSSIBILITIES AND CHALLENGES OF THE USE OF AI IN THE PEDAGOGICAL ACTION OF TEACHERS

In this chapter, we present the most used AI Artificial Intelligence models in the context of EJA in a state public school in the municipality of Raposa, metropolitan region of São Luís - MA, which facilitate pedagogical practice, as shown in Table 1:

Table 1

AI tools used in EJA

Sequence sorted by preference	AI Tool	Address/Website	Used by:
01	Openai ChatGPT	https://chat.openai.com	Students and teachers
02	Meta AI	htps://www.meta.com/ai	Students and teachers
03	Gamma	https//:gamma.app	Teachers
04	Gemini	https:ai.google/	Students and teachers
05	Copilot	https//:copilot.microsoft.com/ch	Teachers

Source: Prepared by the author.

ChatGPT is an artificial intelligence model based on natural language processing that was developed to interact with users through written dialogues. Its operation takes place through advanced neural networks, capable of understanding and generating coherent texts from inputs provided by the user. This technology, widely used in various sectors, has been incorporated into professional education as a tool to support teaching and learning. Its ability to provide quick, detailed, and adapted answers to the educational context contributes significantly to the personalization of teaching, assisting students and teachers in the construction of knowledge in a dynamic and interactive way (Openai, 2023).

In professional education, we can use it to complement theoretical and practical learning, as it provides detailed explanations of technical concepts and helps in resolving doubts instantly. Its application enables the creation of interactive activities, such as case studies, simulations and adaptive tests, favoring the development of skills required by academic life and the job market. In this way, AI becomes an innovative pedagogical

resource, allowing teachers to optimize their time by delegating repetitive tasks to technology and focus on activities that require greater human interaction (Kaufman, 2020).

Another relevant aspect of the use of ChatGPT in professional education is its contribution to the continuing education and training of workers. Professionals who seek constant updating can turn to AI to access content specific to their area of expertise, receive personalized recommendations, and practice technical skills through interactive exercises. This flexibility makes learning more accessible and efficient, reducing geographical and temporal barriers. In addition, AI can act as a virtual tutor, offering immediate *feedback* on the user's performance, which enables a more dynamic and autonomous teaching-learning process (Bottentuit, 2019).

However, despite the advantages listed, it is necessary that the use of ChatGPT in professional education be accompanied by adequate teachers and pedagogical strategies, as its use in no way replaces human mediation, but rather complements it. Teachers should guide students on the critical use of the tool, stimulating analysis and reflection on the information provided by it. Thus, ethical issues, such as data privacy and the veracity of answers, must be considered to avoid possible limitations of AI in the educational process. Therefore, the balanced integration between artificial intelligence and pedagogical practices can contribute significantly to the training of professionals who are more prepared for the challenges of the world of work (Brasil, 2021).

Meta AI, like ChatGPT, is an artificial intelligence technology. It was developed by Meta Platforms, Inc. that aims to improve the interaction between humans and machines (Meta Platforms, Inc., 2022). In the field of vocational education, we can use it to create personalized and adaptive learning environments, more accurate and objective assessment and *feedback*, helping to improve the quality of education and prepare students for the job market. It is capable of creating simulators and virtual training environments, allowing students to practice skills and competencies in a safe and controlled environment. In addition, it develops collaborative learning platforms and allows students to work as a team and share knowledge and experiences, in this perspective "teaching anchored in the use of AI is organized and reorganized in a dynamic of disruptive construction/reconstruction" (Giraffa & Santos, 2023, p. 130).

Utilizing Meta AI in vocational education can bring many benefits, including improving the quality of education, increasing efficiency, and reducing costs, helping to prepare students for the job market by providing them with more relevant and up-to-date skills and

competencies. It can also be used to develop continuing education and training programs for professionals. This allows professionals to keep their skills and knowledge up-to-date and be more competitive in the job market.

Meta AI can be used in several areas of professional education, including technical and technological training. This allows students to develop practical and theoretical skills in specific areas. Additionally, Meta AI can be utilized to develop distance education programs, this allows students to access education more flexibly and conveniently to their needs (Meta Platforms, Inc., 2022).

Regarding Gamma, it is a platform that facilitates the integration of technology into the classroom, providing a unified platform that connects students, teachers, and educational resources. The platform is compatible with a variety of devices and operating systems, allowing students to access educational resources anytime and anywhere (Santos, 2019).

Additionally, Gamma offers a range of tools and features that facilitate the creation and sharing of educational content, online collaboration, and communication between students and teachers, allowing teachers to create a dynamic and interactive learning environment that meets the individual needs of students.

The Gemini tool, developed by *Google*, is an example of how AI can be used to improve the teaching-learning process through resources such as *chatbots* and adaptive learning platforms. Gemini offers students the opportunity to personalize their learning, receive instant *feedback*, and have access to relevant content. In addition, the tool can assist teachers in creating more dynamic lesson plans and evaluating student performance, optimizing the time and quality of teaching.

However, it is important to note that the use of AI in education is not without its challenges. It is essential that educational institutions and teachers are prepared to deal with issues such as the privacy of student data, the need for constant updating of tools, and ensuring that technology is used ethically and responsibly.

According to *Google* Gemini, Gemini is a tool, an AI model developed by *Google* that stands out for its multimodal learning capacity. This means that it can process and integrate information of different types, such as high-quality text, images, audio, and video. This multimodal feature allows Gemini to be used in various applications, such as *chatbots* capable of understanding natural language nuances and providing more relevant and personalized responses; adaptive learning platforms, which can adjust the content and pace of teaching according to the needs and progress of each student (Gemini Tool, 2024).

Copilot is an AI tool created by *Microsoft* (Microsoft, 2023), designed to be a learning and support companion. In the field of education, Copilot can be a valuable resource in many ways, providing quick and accurate answers to a wide range of questions, helping students find reliable information for their research and school assignments. It can help explain complex concepts in a more understandable way and even make content reviews to improve students' understanding. For subjects that require creativity, such as writing and art, you can suggest ideas, help sketch text, and create images based on descriptions provided by students. In addition, it helps students organize their activities, manage their study time by creating schedules.

Educators also benefit from the use of the tool, acting as an aid in the preparation of classes, providing support material, activities and ideas to make classes more dynamic. Additionally, it provides instant feedback on student exercises and activities, allowing for continuous learning and adjusting teaching strategies as needed. Provides and adapts teaching resources to the individual needs of students, providing more personalized support (Microsoft, 2023).

In short, Giraffa and Santos (2023) state that all tools have assertive use depending on the user, as the quality of feedback depends on the level of knowledge in relation to the use and functionality of AI tools and knowledge of the content being researched. In other words, every technological apparatus is within the reach of each user, its functionality and quality of use depends on each one of us knowing, if we are repertoire of our search object.

5 EXPERIENCE REPORT: THE PEDAGOGICAL PRACTICE OF A STATE PUBLIC SCHOOL IN RAPOSA-MA

This chapter presents the author's Experience Report as a pedagogical coordinator on pedagogical practices using AI in the EJATEC of a state public school in the municipality of Raposa, metropolitan region of São Luís in the state of Maranhão.

It is a state public school of part-time high school, located in the municipality of Raposa, belonging to the metropolitan region of São Luís, capital of the State of Maranhão. According to current educational legislation, part-time schools are those in which students stay for a period of less than seven hours a day, serving different groups of students in each shift (Brasil, 2023).

It is in this space that, based on observation and teaching practice, it was found that many teachers have incorporated artificial intelligence (AI) tools into their pedagogical

activities. However, initially, there was some resistance to admitting the use of these resources in the preparation of classes, in planning and in research. Only after discussions held during the planning meetings, which addressed the advantages of integrating digital technologies — especially AI — in optimizing pedagogical time, some teachers began to share experiences about the different tools used.

It is in this context that the experience in Youth and Adult Education Integrated with Vocational Technical Training – EJATEC is shared:

> EJATEC is a teaching modality that interconnects general education, training for the world of work, and specific technical training, presenting young people and adults with ways to learn and complete their basic education, work in the productive world, and transform their trajectories (Chiamareli et al., 2021, p. 08).

Understanding the proposal of Youth and Adult Education integrated with the EJATEC professional technical qualification and its function, it was sought, throughout the year 2024, to implement and encourage the critical use of digital tools as facilitators of pedagogical practice in the classes of the second stage. More than just using these technologies, the teaching team took on the role of fostering their use among colleagues. In this context, the Gamma tool was widely used in the production of digital files and *websites* aimed at individualized study, proving to be efficient in the preparation of classes. The agility in the creation of *slides* and *websites*, as well as the organization and systematization of content, contributed to a better use of the tool, optimizing the time dedicated to the construction of didactic resources.

In addition, all the tools used were critically analyzed by the teachers, who reviewed each digital resource to ensure its adequacy to the students' learning needs. The process of adapting the productions sought to meet the specificities of the students, promoting a reflective and intentional use of technology in the educational context. According to Giraffa and Santos (2023), the quality of content generated by artificial intelligence depends directly on the quality of the questions asked, emphasizing the importance of a qualified and conscious use of these tools.

Therefore, the use of artificial intelligence (AI) tools in the educational context requires not only familiarity with how they work, but also a critical analysis of the products generated. In this sense, when planning the selection of content for each school term, the questions to be asked to the AI were also structured in order to obtain more accurate answers aligned with

the themes to be worked on. In this way, the quality of the information generated was directly related to the careful formulation of the requests made to the tool.

In the school environment, AI was most often used by teachers as a support for lesson planning. The students, on the other hand, resorted to these resources in specific contexts, especially when the teacher adopted active methodologies, such as the flipped classroom. In these cases, the *websites* created with the help of technology were used, above all, in the approach to integrating themes, as established in the National Common Curricular Base - BNCC (Brasil, 2017).

Continuing the discussion on the use of artificial intelligence in the educational context, the application of ChatGPT in school stands out, especially for the generation of information and summaries of various literary works. The observation of the use of this tool revealed its relevance in the production of academic works, such as course completion works (TCCs), reports and other school activities, playing a significant role in the learning process of students at the state public school located in the municipality of Raposa, Maranhão.

However, it was found that the recurrent search for book summaries could limit the interest and practice of reading the works in full. To mitigate this impact, a new strategy was adopted: make the books available for reading and, only after reading and group discussions, use ChatGPT to generate summaries and critically analyze the content produced. This approach allowed us to identify, together with the students, inconsistencies in the generated summaries, such as the insertion of non-existent characters in the original work. When asked for more information about these characters, the tool acknowledged the flaw, apologized for the mistake, and clarified that these characters did not belong in the book in question. This experience reinforced the need for a judicious use of AI, highlighting the importance of teacher mediation in the validation of the information generated by these technologies.

The situation described above occurred only twice throughout the school year, but it was enough to highlight the need to build a solid foundation on the researched contents. Both students and teachers recognized that, in order to evaluate the veracity of information generated by artificial intelligence, it is essential to have prior knowledge about the object of study. In this way, experience has shown that the critical use of these technologies depends directly on the user's ability to analyze and validate the data provided.

The recurrence of the use of ChatGPT in the school environment has made it possible to confirm, in practice, its potential as a didactic tool. By challenging traditional teaching methods, its incorporation provided an innovative approach and streamlined classroom

management. From this experience, the request for summaries of the contents was replaced by analyses and critical reflections of the students about the topics addressed. This change contributed significantly to the production of course completion papers (TCCs), encouraging reading and expanding the students' repertoire. In addition, the tool was used to assist in the development of writing, allowing both the restructuring of students' authorial texts and the revision and improvement of content generated by the AI itself.

> In the educational sphere, ChatGPT can be applied in a variety of ways, including offering personalized and real-time support to students, assisting them in clarifying doubts, solving problems, and reinforcing the concepts learned. In addition, AI can be used as an extension of the work of educators, expanding the reach of pedagogical actions, without overloading professionals, who gain more time to dedicate to strategic issues and human interaction (Pires & Octaviani, 2023, p.10).

In this work perspective, artificial intelligence has become a valuable resource for facilitating pedagogical actions, acting as an ally in the teaching and learning process. The students, in turn, showed great interest in the new form of research and the possibility of improving their textual productions with the support of the tool.

In addition, AI began to be used for the generation and organization of bibliographic references, standardization of texts according to the standards of the Brazilian Association of Technical Standards (ABNT) and production of communications and informative texts. This process allowed teachers to better manage their pedagogical time, directing efforts towards direct interaction with students and the development of more dynamic and meaningful educational practices.

In the same context of innovative pedagogical practices, other artificial intelligence tools, such as Gemini, Meta AI, and Copilot, have been incorporated and used with similar objectives, adjusting to the needs, preferences, and curiosities of their users. These AIs have expanded the possibilities of didactic resources, allowing the diversification of teaching methodologies with the use of digital technologies.

Gemini, specifically, was used to perform image analysis and describe environments, photographs and works of art. The ability to detail the observations made by this tool proved to be impressive, providing a thorough analysis that students were often unable to perform on their own. After the analyses, the students compared their perceptions with those of the AI discussing what they had been able to identify and what, in turn, the tool was able to observe, but which they had not noticed.

Copilot was widely used, especially by teachers, in lesson planning and in research to solve immediate challenges within the classroom. This tool proved to be effective in supporting urgent demands and organizing pedagogical activities.

Meta IA, in turn, stood out for its differential in the generation of bibliographic references, in addition to organizing the texts according to ABNT standards. Another relevant aspect of this tool is the availability of *links to* the *websites* and articles used in its research, offering greater transparency and credibility in the sources consulted for the preparation of the requested content.

It is important to note, as was widely discussed in the process of familiarizing students with the tools, that the quality of the feedback of artificial intelligence is directly related to the quality of the questions asked. This aspect was constantly addressed, constructed and analyzed with the students, aiming to optimize the use of the tools and improve the results obtained in the research.

The students responded positively to the adopted system, feeling more engaged and motivated to learn. This approach resulted in greater participation in academic activities, reflecting a significant reduction in non-attendance and an increase in school performance. Many students exceeded their initial expectations, having access to standardized tests, *quizzes* and digital games, which contributed to the decrease in school dropout throughout the school year.

It is important to highlight that the students of Youth and Adult Education integrated with the EJATEC professional technical qualification are, for the most part, student-workers, who face the dilemma of reconciling the need to work and study. In this context, the tools and strategies used play a crucial role in mediating and facilitating the learning process. By emphasizing facilitation, it is not about lowering the level of the educational process, but rather about making learning more accessible and meaningful, given that much of human knowledge is digitally stored. This highlights the impact of digital technologies on the productive world and on everyday life, and highlights the importance of these tools as facilitators of the construction of school knowledge (Brasil, 2018).

Therefore, the use of AI artificial intelligence has provided a personalized approach to supporting students, allowing them to offer individualized support according to the specific needs of each student. By identifying areas of difficulty, it was possible to provide adequate resources to help develop skills and overcome challenges. This strategy favored the strengthening of students' confidence in their own abilities, directly reflecting on the increase

in academic success. As an example, the classes that used AI throughout 2024 had a significantly higher number of graduates compared to previous years. In contrast to other classes, a substantial reduction in school dropout in the second stage was observed at the end of the school year, highlighting the benefits of integrating digital technologies into the educational process.

The incorporation of Artificial Intelligence (AI) in Professional Technical Youth and Adult Education (EJATEC) provided significant learning experiences, optimizing pedagogical time and expanding teaching possibilities. The use of AI in the classroom has made it possible to personalize teaching, allowing students to interact with innovative technological tools that help in the development of specific skills. In this way, the use of AI-based resources has enhanced the construction of knowledge, making classes more dynamic and accessible.

The results obtained from the implementation of AI in professional technical education demonstrated that this technology offers a diverse set of tools that enrich teaching practices. In addition to favoring the adaptation of content to the needs of students, AI contributed to pedagogical mediation, making the teaching-learning process more efficient. The experience analyzed shows that the insertion of AI in the school context can strengthen the training of EJATEC students, preparing them for the challenges of the world of work and the digital society.

Among the main resources and strategies adopted in the integration of Artificial Intelligence (AI) into Professional Technical Youth and Adult Education (EJATEC), the personalization of teaching stands out, which made it possible to adapt the content to the specific needs of each student. This personalization allowed for a more individualized follow-up, favoring the construction of knowledge in a more accessible and effective way. In addition, the implementation of AI provided *instant feedback* to students, allowing teachers to make corrections and adjustments in real time, optimizing the evaluation process and ensuring greater accuracy in pedagogical mediation.

Another relevant aspect was the analysis of educational data, which contributed significantly to the identification of difficulties and gaps in learning. Based on this information, it was possible to develop teaching strategies that were more aligned with the students' profile, promoting more effective learning. In addition, AI favored the optimization of pedagogical time, assisting in the preparation of didactic planning and in the selection of educational resources more appropriate to teaching activities. In this way, the integration of

these resources strengthened teaching practices, making them more dynamic, innovative and adapted to the contemporary demands of professional technical education.

6 FINAL CONSIDERATIONS

The present research originated from a bibliographic study on Youth and Adult Education EJA integrated with Professional Technical Education EJATEC, focusing on the insertion of Artificial Intelligence AI in the pedagogical practice of a state public school. The investigation sought to understand how AI could be incorporated into the educational context, analyzing its influence on teaching and learning processes, as well as the challenges and possibilities that emerge from this integration.

The main objective of the study was to examine the potential of Artificial Intelligence in professional technical education, considering its applications in the improvement of pedagogical practices and in the qualification of EJATEC students. For this, the methodology adopted was based on a bibliographic research, complemented by the author's experience report, allowing a critical analysis of the implementation of AI in everyday school life and its impacts on the education of students.

The integration of Artificial Intelligence (AI) in Professional Technical Youth and Adult Education (EJATEC) has provided significant advances in the teaching-learning process. The use of AI-based tools has allowed the personalization of teaching, making classes more dynamic and accessible, in addition to favoring the development of specific student skills. In this way, technology has proven to be an ally in the construction of knowledge, optimizing pedagogical time and expanding educational possibilities.

The results of the implementation of AI in professional technical education show that this technology improves teaching practices and contributes to pedagogical mediation. The adaptation of content to the individual needs of students has made teaching more efficient, while the use of AI has allowed instant feedback to be offered , ensuring more accurate monitoring of academic performance. In addition, AI has strengthened the training of students, preparing them for the challenges of the world of work and the digital society.

The analysis of educational data, made possible by AI, proved to be a determining factor for the identification of difficulties and gaps in learning. Based on this information, it was possible to develop pedagogical strategies that are more aligned with the students' profile, promoting more effective learning. In addition, the optimization of pedagogical time and the selection of more appropriate educational resources contributed to making teaching

practices more innovative and adapted to the contemporary demands of professional technical education.

In this way, emerging digital technologies, when applied with pedagogical intentionality, play a fundamental role in facilitating the teaching process. This aspect is especially relevant in EJATEC Professional Technical Youth and Adult Education, where there is a great diversity of profiles and academic trajectories, making it essential to develop approaches that ensure equity in access to knowledge.

In addition, it was found that the integration of AI in pedagogical practices contributes to the creation of a more dynamic, interactive and inclusive educational environment. The automation of certain administrative and evaluative activities has enabled teachers to direct greater attention to pedagogical mediations and individualized monitoring of students. In this way, the adoption of emerging digital technologies not only optimizes pedagogical time, but also expands learning opportunities, making the educational process more accessible, efficient, and aligned with the contemporary demands of professional technical education.

However, in view of the speed of transformations and constant technological advances, it is essential to expand studies on the optimization of pedagogical time in each curricular component. The accelerated evolution of Artificial Intelligence (AI) requires a dynamic and adaptable educational approach, so that its strategic implementation in technical education not only keeps up with these changes, but also enhances the effectiveness of teaching. Thus, deepening research on the use of AI in the educational context becomes essential to ensure that pedagogical practices remain aligned with contemporary demands and the new demands of the world of work.

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