



Semi-presential teaching and the challenges for digital empowerment in adult and youth education (EJA)

ARTICLE

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Abstract

The integration of digital technologies into Adult and Youth Education (EJA) faces numerous challenges, particularly regarding students' familiarity with these tools. This article presents the outcomes of a project implemented in a public state school in Espírito Santo, Brazil, adopting a blended learning methodology. Pedagogical actions, including training workshops for teachers and students and practical digital literacy strategies, were developed. The primary goal was to ensure equitable access to digital technologies, recognizing their role as essential tools for students' academic, social, and professional development. The findings suggest that, despite initial difficulties, well-structured pedagogical interventions and institutional support can promote digital inclusion and foster digital emancipation in the EJA context.

Keywords: Blended Learning. Digital Empowerment. Youth and Adult Education. Digital Inclusion.

O ensino semipresencial e os desafios para a emancipação digital na EJA

Resumo

A integração de tecnologias digitais na Educação de Jovens e Adultos (EJA) é permeada por desafios, sobretudo relacionados à baixa familiaridade dos estudantes com essas ferramentas. Este artigo apresenta os resultados de um projeto desenvolvido em uma escola pública estadual do Espírito Santo, que utiliza a metodologia semipresencial. Foram promovidas ações pedagógicas, como oficinas de capacitação para docentes e estudantes, além de estratégias práticas de letramento digital. O principal objetivo foi viabilizar o acesso equitativo às tecnologias digitais, reconhecendo-as como instrumentos indispensáveis para o desenvolvimento acadêmico, social e profissional dos estudantes. A análise dos resultados evidencia que, apesar das barreiras iniciais, intervenções pedagógicas planejadas e suporte institucional podem fomentar a inclusão tecnológica e contribuir para a emancipação digital no contexto da EJA.

Palavras-chave: Ensino Semipresencial. Emancipação Digital. EJA. Inclusão Digital.

1 Introduction



The advancement of digital technologies has led to significant transformations in the contemporary educational landscape, posing complex challenges for both educators and learners. In the context of Adult and Youth Education – Educação de Jovens e Adultos (EJA) –, these challenges are even greater, as individuals in this educational modality — often excluded from formal education in earlier stages of their lives — face the need to overcome technological barriers that hinder their access to knowledge and integration into the job market.

Blended learning emerges as an alternative by offering flexibility and accessibility to students who must balance multiple responsibilities, such as work, family, and education. This model integrates in-person and virtual teaching, leveraging the potential of digital tools to enrich the pedagogical process and provide more comprehensive training aligned with the specific needs of this audience.

This article addresses digital inclusion in the context of EJA, which, despite utilizing digital learning platforms and interactive resources — thus diversifying study possibilities — still faces the challenge of low technological familiarity among many students. This situation reveals a contradiction present in many educational initiatives that incorporate technology: while schools implement blended learning methodologies supported by virtual platforms, many students encounter practical difficulties in accessing them.

This scenario highlights a disconnect between the pedagogical approach and students' initial competencies, exacerbating educational and social inequalities. A lack of technological knowledge not only hinders the effective use of available resources but also limits the development of essential skills such as critical thinking, problem-solving, and collaboration.

According to the Curriculum Guidelines for Adult and Youth Education (DCEJA, 2024), access to digital technologies should be recognized as a fundamental right and an essential tool for students' comprehensive education. Papert (1993) argues that the role of computers in education goes beyond merely transmitting knowledge; they serve as mediators that transform the way we learn and engage with knowledge. In this sense,



training for both teachers and students, combined with the availability of adequate infrastructure, is a crucial requirement for the success of any digital inclusion initiative.

We agree that achieving a more inclusive education requires ensuring equitable access to technological devices, connectivity, and digital training. Without these resources, EJA students remain on the margins of contemporary digital society, facing even greater challenges in breaking the cycle of educational and social exclusion.

Throughout this study, we emphasize that integrating digital technologies into EJA can foster greater autonomy, engagement, and the development of essential skills for modern life. Thus, we seek to contribute reflections on how to overcome the challenges arising from unequal access and maximize the benefits of technology in the educational process for young and adult learners.

2 Methodology

This study stems from the identification of a specific weakness: the lack of use and/or familiarity of Adult and Youth Education (EJA) students with digital technological resources. Based on this observation, pedagogical interventions were implemented to strengthen the connection between students and the available technologies, promoting a more effective integration into the learning process.

The study was conducted in a state public school that offers EJA at two levels of basic education: elementary and high school. The project involved approximately 800 students, ranging in age from 15 to 60 years.

The adopted methodology combined in-person and virtual approaches, aligned with the school's blended learning model, and included practical digital inclusion initiatives. Among these initiatives, notable actions included training workshops for both teachers and students, complemented by systematic observation, field records, and detailed analysis of the collected data. This combination of strategies allowed for the identification of major difficulties in the use of digital technologies and the development of interventions aimed at overcoming these challenges.





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Data collection was carried out through reports generated by the school's Academic Control System, supplemented by observations and records made by teachers and the pedagogical team. The data analysis focused on measuring students' engagement with the digital learning platform (PVA) and the available technological tools, comparing results obtained before and after the project's implementation.

The information presented in Table 1 covers the period from February 5, the start of the 2024 academic year, to May 15. The table highlights four state school units that share the same teaching structure and educational model. To preserve the confidentiality of the institutions, the units were identified by numbers, with Unit 04 being the focus of this research.

This analysis aims to highlight the observed weakness in the use of digital technologies, based on performance indicators from the state network's Academic Control System for CEEJAs¹. The data reveal that Unit 03 had the highest number of interactions, with 6,979 virtual attendances, followed by Unit 02, with 1,915 attendances. In contrast, Unit 04 recorded only 25 interactions, and another unit had an even lower percentage, reflecting the challenges faced by Adult and Youth Education (EJA) students in using digital technologies.

Table 1 – Report of Attendances by Unit

Report of Attendances by Unit Start Date: 02/05/2024 End Date: 05/15/2024	
Local Unit	Virtual Attendance
UNIT 03	6979
UNIT 02	1915
UNIT 04	25
UNIT 01	5

Source: Prepared by the author.

These data indicate that the virtual tool was underutilized by both students and the teaching staff. After identifying the issue in the results related to "Virtual Attendance," we

¹ The CEEJAs are school units within the state public school system, operating in dedicated buildings established by the Executive Branch and approved by the State Board of Education (CEE/ES)



aligned with the school team and established four specific objectives: to raise awareness and train school professionals in the use of the online learning platform; to ensure equitable access to devices through the Laboratory of Inclusion and Digital Education – Laboratório de Inclusão e Educação Digital (LIED) and Wi-Fi internet access for all students; to create a welcoming and encouraging learning environment that fosters the exploration of digital tools; and to promote practical and engaging activities that encourage student participation with technology.

These specific objectives were divided into five practical stages: analysis of the results from the Academic Control System; awareness and training workshops for school staff; provision of computers and internet access for students; activities involving the use of digital technologies (use of LIED, digital literacy, virtual scavenger hunts on the Learning Platform, creation of QR Codes); and evaluation of results.

The school began offering Wi-Fi internet access to all students. Teachers developed a rotation schedule for the LIED, providing tutorials to students during their planning periods so they could use the computers.

For students who had never handled a computer before, differentiated activities were planned to meet their specific needs, with the goal of promoting digital literacy. These activities aimed to introduce students to the digital world in an accessible and meaningful way. The first stage of this process took place in the LIED, where students engaged in two fundamental actions: the first was interaction with and use of technological tools. For many students, this moment was particularly significant, as they had never turned on or used a computer before. This encounter with technology became a moment of discovery, where students could see themselves as transformative agents of a reality that had previously seemed distant and mysterious, but was now understood as a field of potential action through creative work (Freire, 1987, p. 109).

The second stage involved more advanced activities, such as using online research tools, practicing typing in Word, and learning to navigate email systems and messaging applications. By being introduced to search engines, students explored autonomous and critical research methods. Typing practice in Word not only contributed to their writing skills



but also enhanced their ability to express themselves digitally. Additionally, students were trained to create and organize their own messages via email and to communicate effectively through digital platforms, expanding their digital competencies and understanding of their relevance in everyday life.

Complementary activities explored other computer functionalities, such as using spreadsheets for organizing information and creating graphs, as well as accessing programs and applications designed to develop administrative and academic skills. Mastery of these tools increased students' organizational and analytical abilities, preparing them to handle the growing impact of technology in both professional and social settings.

Digital literacy represents the first step toward empowerment in the technological world. This concept encompasses not only the mastery of devices and software but also the ability to navigate digital spaces critically, understanding their functionality and expanding the use of available tools. Papert (1993) argues that technologies, particularly computers, have the potential to transform learning by enabling a more active and meaningful relationship with knowledge.

In the context of Adult and Youth Education (EJA), digital literacy takes on a fundamental dimension, as many of these students have historically been excluded from digital literacy processes. This process of digital inclusion, therefore, not only promotes technological access but also serves as a vehicle for empowerment in the contemporary educational landscape.

To facilitate access to the platform, QR Code cards containing the website address were created and distributed during student support sessions.

Raising awareness among school professionals about the use of technology was a key strategy that positively transformed the school's pedagogical practices. As a result of this initiative, the school was able to mobilize the necessary efforts to integrate technology into teaching, providing students with greater opportunities for engagement and participation in the use of digital tools. Two practical workshop sessions were conducted with teachers.



During one of these sessions, the Mathematics teacher introduced colleagues to a more dynamic and simplified communication proposal. This suggestion was added to the homepage of the website, ensuring easy access for all students. Following this, an illustration of the platform incorporating this model was presented. The purpose of the tool is to allow students to click on an image and directly communicate with the teacher they wish to interact with.

Activities were planned, including a Virtual Scavenger Hunt, in which students could earn extra points on the Virtual Learning Platform, to encourage and promote their participation in online activities.

Student participation yielded significant results, as evidenced by the overcoming of initial difficulties and increased engagement in challenging activities, such as the use of digital tools, which were new to many of them. This progress exceeded our expectations, leading to an extension of the activity for another month.

According to the DCEJA (2024, p. 19),

The identities of the individuals who make up Educação de Jovens e Adultos (EJA) in the território capixaba are diverse. However, for a significant portion of them, the need to return to school seems to be driven by the demands of the labor market. It is essential to consider that we are referring to individuals with rights, each experiencing their own unique circumstances within historical contexts, interacting with others, and engaging with different stories, trajectories, and life experiences. (DCEJA, 2024, p.19)

The challenge, therefore, is to promote an education that ensures equal access to technology for these individuals, reducing the social and economic barriers that separate them from the digital environment. This requires educational policies that provide the necessary infrastructure, along with pedagogical practices aimed at inclusion.

3 Discussion

The integration of digital technologies in education has sparked deep debates about their emancipatory potential. In the context of Adult and Youth Education (EJA), this





discussion becomes even more relevant due to digital exclusion and the difficulties in accessing technological tools. The concepts of digital emancipation, digital literacy, and blended education are interconnected in addressing these challenges, offering pathways for individuals to actively participate in contemporary society.

According to Santos and Oliveira (2020), digital literacy goes beyond the mere acquisition of technical skills. It becomes a process through which individuals develop critical awareness regarding the use of technology and, in doing so, achieve emancipation. This process is particularly crucial in EJA, where many students have had little or no contact with digital tools. Blended education, using digital platforms, creates opportunities for this emancipation to occur, provided it is accompanied by pedagogical practices that promote critical thinking and the conscious use of technology.

In this sense, digital emancipation should not be seen merely as a tool for technological inclusion but as a means of social transformation. By enabling EJA students to appropriate technology, educational institutions contribute to reducing social and economic inequalities that often hinder the full exercise of citizenship.

Brasil and Souza (2018) reinforce that digital education plays a crucial role in emancipation. In the context of blended education, students are challenged to take ownership of their learning. Autonomy in using technology, as discussed in studies on digital emancipation, is fundamental for students to navigate and learn in a digital environment that is both empowering and transformative.

Thus, technology ceases to be just a teaching tool and becomes a means of social transformation, allowing EJA students to take control of their learning journeys and become active participants in the digital society.

However, the integration of digital technologies in EJA also faces challenges and criticism. One of the main issues raised concerns structural inequality and the lack of access to quality technological equipment and internet, especially in remote or economically disadvantaged areas. These factors limit the effectiveness of digital and blended learning initiatives.



Additionally, critics argue that an excessive focus on technology use may divert attention from other essential aspects of education, such as the development of socio-emotional skills and pedagogical practices that consider students' local contexts. According to Pereira and Silva (2019), there is a risk of superficial digital inclusion, in which individuals are introduced to technology without gaining a real critical understanding of its applications and implications in society.

Another important issue is the role of teachers in this process. Not all educators are adequately prepared to integrate technology effectively into their teaching, and the lack of specialized training may result in inefficient or mechanical pedagogical practices.

Finally, there is concern about the extent to which dependence on digital tools may further exclude those who already struggle with access, thereby perpetuating social inequalities.

4 Results

We could assume that all students are already familiar with digital technologies, however, the reality sometimes shows that many still face difficulties accessing and effectively using these tools. Recognizing this fragility is the first step toward overcoming it and ensuring digital inclusion and cognitive development, especially for students of EJA.

The research data revealed a low initial rate of student engagement with the virtual learning platform and the use of digital technologies. The analysis suggests that the difficulties faced by students, mostly workers and heads of families, are directly related to their lack of familiarity with the digital environment. The perception of inability to deal with digital technologies, as discussed by Freire (1987), can act as a significant obstacle to digital inclusion. "The fear of freedom, which can lead the oppressed to flee from it, is ambiguous: at the same time they fear it, they seek it." (Freire, 1987).

Many students of EJA, when faced with digital technologies, internalize a sense of incapacity that needs to be overcome to ensure inclusion and cognitive development. Aware of this issue, the pedagogical team developed strategies for reception and access,





with the main goal of integrating digital technology into the pedagogical practices of Adult Education. This approach aims to enhance educational outcomes, ensuring that all students have equal opportunities to learn and develop in an increasingly technological world.

The identified weaknesses included the students' lack of familiarity with digital technologies and the lack of affinity some professionals had with the semi-presential methodology of the Virtual Learning Platform. Paulo Freire (1987) highlights that discourses that devalue individuals can lead them to internalize the idea of their own "incapacity." This limiting perception not only obscures their true potential but also impedes their ability to transform and emancipate themselves. Without the proper encouragement to explore and use the available digital tools, educators and students may come to believe they lack the necessary skills to keep up with innovations, thus perpetuating technological exclusion.

The results indicate a significant improvement in the number of interactions with the Virtual Learning Platform (PVA) after the implementation of the proposed actions, rising from 25 to 825 recorded interactions over a three-month period. This increase reflects not only progress in the use of technology but also the importance of a welcoming learning environment and continuous encouragement for student participation.

The success of the implemented initiatives demonstrates that digital inclusion in EJA goes beyond mere access to technologies; it involves a cultural and pedagogical transformation that requires students and teachers to be aware of the emancipatory potential of digital tools. According to Papert (1993, p. 07), "the computer is not just a tool for transmitting knowledge, but a machine that transforms the way people learn and relate to knowledge."

By integrating technologies in a critical and guided manner, the school can not only reduce digital exclusion but also promote cognitive development and autonomy among students, preparing them to face the challenges of an increasingly technological society. This is the moment when Freire (1987) points out that individuals begin to see themselves as active agents of reality. Once immersed in an oppressive and often incomprehensible



view, now, by becoming aware of their situation, they become active subjects, capable of intervening in the world to transform it.

This inclusion process will only be complete when both teachers and students perceive themselves as capable of transforming their reality, using technologies as tools for emancipation and social change.

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5 Final Considerations

Adult Education (EJA) plays a crucial role in the education and inclusion of individuals who, for various reasons, were unable to complete basic education at the "appropriate age." In this context, the semi-presential methodology emerges as an approach that can promote digital inclusion, allowing these students to overcome barriers imposed by unfamiliarity with technologies. By integrating digital technology in a conscious and pedagogically guided manner, EJA aims not only to improve learning but also to ensure that all students have equal access to educational opportunities, preparing them to interact critically and effectively in an increasingly connected and digitized world.

The practice took place at the school itself, with strategies planned collectively, always involving the pedagogical team, management, and teachers. The main goal was to integrate digital technology in a conscious and pedagogically guided manner, aiming to enhance educational outcomes and ensuring that students have equal opportunities to learn and develop in an increasingly technological world.

To achieve this goal, we realized that it would be necessary to raise awareness among professionals and promote training sessions, especially for new collaborators. One of the main challenges was mobilizing both the school professionals and the students, breaking the stigma that EJA students cannot develop technological skills.

During this period, we sought strategies to overcome the identified weaknesses, such as training workshops for teachers, digital literacy sessions in LIED for students, practical and playful activities to familiarize students with technologies, equitable access to devices and the internet, and a welcoming learning environment that encouraged the





exploration of digital tools. These actions will continue to be part of the school's daily routine, consolidating and advancing the overcoming of challenges.

We know that individuals who do not use digital technologies may face a range of obstacles, especially in the educational context and the current job market, where technology plays a fundamental role. The results of this practice show that, with proper support and respect for the needs of EJA students, they can gradually gain confidence and skills to use digital technologies. Finally, we believe that technological inclusion should be considered not only as a school need but as an essential tool for empowering EJA students, providing them with valuable opportunities both in education and in their professional lives.

When students use technology to create and explore, they are appropriating a new form of knowledge, which not only makes them more technically competent but also more autonomous and capable of interacting critically with the world around them. (Papert, 1993, p. 74).

As discussed throughout this article, the semi-presential education model presents itself as an important tool for the digital inclusion of EJA students, but its success directly depends on digital literacy and the promotion of technological emancipation. Social transformation will only be possible when these students are able to use technologies as instruments of change, as proposed by Papert (1993), who highlights the potential of computers as mediators of knowledge. The pedagogical practice discussed in this article reinforces the importance of educational policies that include the technological training of students and teachers, as well as the need for adequate resources to ensure the inclusion of all individuals in the digital learning process. The continuation of this project is essential to consolidate the achievements made and move toward a more inclusive and equitable education.

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DOI: <https://doi.org/10.47149/pemo.v7.e14135>
<https://revistas.uece.br/index.php/revpemo>
ISSN: 2675-519X



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Código de campo alterado



Responsible publisher: Genifer ANdrade

Ad hoc specialist: Marcos Vinicius Reis Fernandes, Helga Porto Miranda and Maria Luiza Canedo.

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How to cite this article (ABNT):

CAU, Patrícia Flávia dos Santos. O ensino semipresencial e os desafios para a emancipação digital na EJA. **Rev. Pemo**, Fortaleza, v. 7, e14135, 2025. Available at: <https://revistas.uece.br/index.php/revpemo/article/view/14135>

Received on October 3, 2024.

Accepted on January 3, 2025.

Published on March 8, 2025

