DIGITAL TECHNOLOGIES AS METHODOLOGIES THAT ENHANCE LEARNING IN YOUTH AND ADULT EDUCATION

TECNOLOGIAS DIGITAIS COMO METODOLOGIAS POTENCIALIZADORAS DA APRENDIZAGEM NA EDUCAÇÃO DE JOVENS E ADULTOS

TECNOLOGÍAS DIGITALES COMO METODOLOGÍAS PARA MEJORAR EL APRENDIZAJE EN LA EDUCACIÓN DE JÓVENES Y ADULTOS

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ABSTRACT

This article investigates the use of digital technologies as active methodologies in Youth and Adult Education (EJA) and PROEJA, in light of Freire's pedagogy and the Socioconstructivist Didactic Codesign (CDS) approach. The qualitative, applied intervention research is grounded in the principles of socioconstructivism and the Design-Based Research (DBR) methodology. Through participant observation, knowledge journals, and collaborative activities, the study sought to understand how technologies, when critically integrated into the pedagogical process, can enhance meaningful, personal, and emancipatory learning. The results indicate greater student engagement, increased autonomy, the development of critical digital literacy, and the redefinition of school spaces as territories of protagonism and knowledge production. The study also discusses institutional, social, and political barriers to the implementation of technologies in EJA, advocating for a critical and transformative perspective on digitally mediated education.

Keywords: Youth and Adult Education. Digital Technologies. Active Methodologies. Socioconstructivist Didactic Codesign. Intervention Research.

RESUMO

O artigo investiga o uso das tecnologias digitais como metodologias ativas na Educação de Jovens e Adultos (EJA) e no PROEJA, à luz da pedagogia freiriana e da abordagem do Codesign Didático Socioconstrutivista (CDS). A pesquisa, de natureza qualitativa e intervenção aplicada, fundamenta-se nos princípios do socioconstrutivismo e na metodologia Design-Based Research (DBR). Por meio de observação participante, diários de saberes e atividades colaborativas, buscou-se compreender como as tecnologias, quando criticamente integradas ao processo pedagógico, podem potencializar aprendizagens significativas, autorais e emancipadoras. Os resultados indicam maior engajamento dos educandos, ampliação da autonomia, desenvolvimento do letramento digital crítico e ressignificação dos espaços escolares como territórios de protagonismo e produção de saberes. O estudo também discute barreiras institucionais, sociais e políticas à implementação das tecnologias

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na EJA, defendendo uma perspectiva crítica e transformadora da educação mediada digitalmente.

Palavras-chave: Educação de Jovens e Adultos. Tecnologias Digitais. Metodologias Ativas. Codesign Didático Socioconstrutivista. Pesquisa-Intervenção.

RESUMEN

Este artículo investiga el uso de las tecnologías digitales como metodologías activas en la Educación de Personas Jóvenes y Adultas (EJA) y PROEJA, a la luz de la pedagogía de Freire y el enfoque del Codiseño Didáctico Socioconstructivista (CDS). La investigación cualitativa de intervención aplicada se fundamenta en los principios del socioconstructivismo y la metodología de la Investigación Basada en el Diseño (DBR). A través de la observación participante, diarios de conocimiento y actividades colaborativas, el estudio buscó comprender cómo las tecnologías, al integrarse críticamente en el proceso pedagógico, pueden potenciar el aprendizaje significativo, personal y emancipador. Los resultados indican una mayor participación estudiantil, mayor autonomía, el desarrollo de la alfabetización digital crítica y la redefinición de los espacios escolares como territorios de protagonismo y producción de conocimiento. El estudio también analiza las barreras institucionales, sociales y políticas para la implementación de las tecnologías en la EJA, abogando por una perspectiva crítica y transformadora de la educación mediada digitalmente.

Palabras clave: Educación de personas Jovenes y Adultas. Tecnologías Digitales. Metodologías Activas. Diseño Didáctico Socioconstructivista. Investigación-Intervención.

1 INTRODUCTION

The present research has as its central focus the use of digital technologies as methodologies to enhance learning in Youth and Adult Education (EJA) and in the National Program for the Integration of Professional Education with Basic Education in the Modality of Youth and Adult Education (PROEJA). In a society marked by technological convergence and the growing appreciation of digital skills, rethinking pedagogical practices becomes an urgency, especially in EJA, where historical challenges of social and educational exclusion persist.

Overcoming reproducivist pedagogical models and promoting meaningful, contextualized and emancipatory learning is, in this scenario, an ethical and political requirement of youth and adult education (Freire, 1996; Gadotti 2003).

Inspired by Freire's conception of education as a practice of freedom, this study is born from the concerns experienced in the school routine — both in the exercise of teaching and in the experiences of coordination and pedagogical management. Throughout this trajectory, it was possible to observe the low interaction of students with school content and a restricted use of digital technologies, generally aimed at entertainment or informal communication, with no effective connection with educational processes. This reality highlights the need to incorporate technologies not as mere accessories, but as structuring elements of innovative pedagogical proposals, centered on the protagonism of subjects and the collective construction of knowledge (Moran, 2015; Pretto, 2012).

It is understood, therefore, that the contemporary challenge is not limited to the insertion of technological devices in the school environment, but demands the creation of pedagogical practices that mobilize these tools in a critical, creative and meaningful way. To this end, the importance of active methodologies is highlighted, which break with the transmissive logic and favor collaboration, authorship and critical thinking. Among these approaches, the Socioconstructivist Didactic Codesign (CDS) stands out, which proposes the joint construction of learning paths, valuing the students' prior knowledge and encouraging the conscious use of digital technologies (Bacich; Moran, 2018; Valente, 2011).

The guiding question of the study was: how to develop a pedagogical solution based on digital technologies, using active methodologies, in EJA/PROEJA? Thus, this research aims to understand how a pedagogical solution based on digital technologies, mediated by active methodologies, can enhance the learning processes in EJA/PROEJA. As specific objectives, it is sought: to analyze the role of digital technologies in the mediation of the CDS; to identify digital tools appropriate to the context of EJA/PROEJA; to develop a proposal for

digital pedagogical intervention; to monitor and evaluate the effectiveness of this proposal in the educational process.

The methodology adopted is anchored in research-intervention, based on the principles of Freire's pedagogy, on the approach of Design-Based Research (DBR) and on the conception of research as an educational and transformative act (Thiollent, 2008; Brandão, 2002). The investigative process involved participant observation and actions integrated into the school routine, including playful practices, approximations with the world of work and the use of technologies such as cell phones, chromebooks[4] and digital applications (Google for Education[5], Canva[6], Jamboard[7], Meet[8], Zoom[9], PHeT Colorado[10]).

As a result, the students actively participated in the collective construction of digital products, demonstrating critical appropriation of both the content and the tools used. This showed that technology, when articulated with a critical pedagogy, can become an instrument for emancipation and resignification of learning (Fagundes, 2004; Silva, 2010).

The relevance of this research lies precisely in the search for pedagogical solutions that incorporate digital technologies in a critical and transformative way, going beyond their instrumental use or aimed exclusively at entertainment. Inspired by Freire's conception of education as a practice of freedom, this study is born from the concerns experienced in the school daily life — both in the exercise of teaching and in the experiences of coordination and pedagogical management — where it is observed the low interaction of students with school content and a restricted use of digital technologies, without effective connection with educational processes. This reality highlights the urgency of reconfiguring school spaces as territories of protagonism, authorship, and production of knowledge mediated by digital culture (Moran, 2015; Pretto, 2012).

The structure of this study is organized from an introduction that presents the preambles of the research, followed by the development of the methodological approach with the details of the investigative path, barriers to the insertion of technologies in EJA/PROEJA, the findings of the research, its conclusions and the dialogues with the authors that founded and sustained the analyses carried out.

[4] Chromebook is a type of computer that works with the ChromeOS operating system and uses cloud storage.
[5] Google for Education is a digital platform with several interactive interfaces aimed at the educational area.
[6] Canva is an interactive graphic designer online interface.
[7] Jamboard is a digital interface in the form of a whiteboard, collaborative and conducive to sharing ideas online.
[8] Meet is part of google workspace, and makes video calls. Online virtual interaction environment.
[9] Zoom is similar to meet. It allows video calls, virtual and online interaction environment.
[10] PHetColorado is a collaborative, playful and interactive online simulator for the areas of science and mathematics.

2 METHODOLOGICAL APPROACH

This study is characterized as an applied research, with a qualitative approach, aimed at solving concrete problems experienced by students of Youth and Adult Education in the PROEJA modality. Applied research seeks to apply scientific knowledge to real contexts, proposing practical solutions to specific challenges (Silva; Menezes, 2001).

The qualitative approach was chosen because it allows an in-depth understanding of educational phenomena in their natural contexts, considering the complexity of the experiences, perceptions and meanings attributed by the subjects. As Prondanov and Freitas (2013) point out, this perspective recognizes the link between the subjectivity of the participants and the social and historical contexts in which they are inserted. The option for qualitative research is also justified by the emphasis on the holistic understanding of the teaching-learning processes, valuing the cultural, institutional and human aspects that permeate the reality of EJA/PROEJA (Menga; Marli, 1986; Minayo, 2003).

The methodological design adopted is inspired by intervention research, based on the *Design-Based Research* (DBR) approach and guided by the principles of Freirean pedagogy. Intervention research proposes the production of knowledge based on the transformation of practice, considering the subjects as co-authors of the investigative process (Thiollent, 2008; Brandão, 2002).

Data collection was carried out through participant observation, conversation circles and knowledge diaries, tools that made it possible to capture the richness of interactions, perceptions and collective constructions emerging in the educational process. The analysis was conducted in an inductive and interpretative way, seeking to identify meanings, patterns and learnings resulting from the pedagogical experience mediated by digital technologies and active methodologies.

The involvement of the researcher as a participating agent in the investigated context was essential to ensure sensitive listening to the voices of the students, favoring the shared construction of meanings. Such a posture allowed greater flexibility and openness to methodological adaptations along the way, respecting the dynamic nature of the researched reality (André; Gatti, 2008).

3 SOCIOCONSTRUCTIVISM AND DESIGN-BASED RESEARCH (DBR)

Before delving into the conception of Socioconstructivist Didactic Codesign (CDS), it is essential to understand the theoretical foundations that support it: socioconstructivism and Design-Based Research (DBR).

Socioconstructivism is an educational approach anchored in Vygotsky. It is based on the premise that knowledge is socially constructed, based on the interaction between subjects and the environment to which they belong (Oliveira, 2019). For Vygotsky, learning initially takes place at a social level – through contact with others – and is later internalized by the individual. In this process, the learner ceases to be a passive receiver of information and starts to occupy an active role in the construction of his own knowledge.

In order to understand how this educational knowledge is articulated with the methodology adopted in this study and with the CDS proposal, it is necessary to address key concepts from the Vygotskyan perspective, such as mediation and the Zone of Proximal Development (ZDP).

When we focus on Vygotsky's (1991) historical-cultural theory, we perceive its decisive contribution to understanding the learning processes in EJA/PROEJA, especially because it highlights the central role of mediation and social interaction in cognitive development. The concept of mediation refers to the use of instruments and signs – such as language, symbols, cultural artifacts and, in this study, digital technologies – as bridges between the subject and the object of knowledge.

In the context of the pedagogical practice mediated by the Socioconstructivist Didactic Codesign (CDS), digital technologies fulfill this role of mediating instruments. Tools such as Canva, Google Docs, Jamboard and digital simulators are configured as cultural resources that promote cognitive reorganizations, facilitating the expression, collaboration and authorship of students.

Another essential concept to understand the educational proposal of the CDS is the Zone of Proximal Development (ZDP). This represents the distance between what the learner can accomplish alone and what he is able to do with the help of a more experienced mediator (Vygotsky, 1991). In the CDS, this mediation occurs both on the part of the educator and among the peers themselves, as the students collaborate with each other to solve problems, share experiences and build knowledge together.

During the research, it was observed that the activities linked to the reality of the subjects, combined with the significant use of digital technologies, expanded the ZPD of the students. Through the CDS, they were challenged to perform tasks that went beyond their previous knowledge, but which became possible thanks to interactions between colleagues and the support of the teacher.

In addition, the dialogical structure of the conversation circles, the collaborative challenges, and the records in the knowledge diary showed how learning occurred in contexts of interaction and interdependence of knowledge — a central characteristic of Vygotskian

theory. Technological mediation, in this scenario, does not replace the role of the educator; on the contrary, it enhances it, offering multiple forms of expression, collaboration and engagement, favoring the advancement of subjects from their real to potential development zone.

Design-Based Research (DBR), in turn, has as its pillars investigative innovation and the connection between academia and educational practice, especially in the use of digital technologies (Matta; Silva; Boaventura, 2014). It is a flexible methodology, oriented to solving real problems in educational environments. At EJA, DBR contributes to integrating technologies into the training process, promoting the centrality of the student and valuing their life experiences.

The Socioconstructivist Didactic Codesign (CDS) emerges as an active methodology aimed at solving educational problems, placing the subjects at the center of actions and proposing creative solutions based on socioconstructivism and the use of digital technologies. It is based on collaboration, responsiveness and interactivity, and is marked by constant dialogue and the sharing of multiple visions (Matta; Silva; Boaventura, 2014).

The CDS has fundamental characteristics that guide its pedagogical application. With a solid theoretical basis, supported by the principles of socioconstructivism and DBR, it offers support for both research and practice. It assumes a strongly interventionist character, using didactic processes and pedagogical interfaces to understand and face educational challenges. In addition, it values active collaboration, encouraging the joint construction of knowledge between educators, students and other agents of the training process.

Another striking feature of the CDS is its interactivity and flexibility, which allows for continuous adjustments, promoting a participatory dynamic among those involved in the search for meaningful solutions.

This approach makes it possible to conduct the educational process in a collaborative way, contextualizing the problems addressed and promoting the reconstruction of knowledge from different perspectives. The interaction between participants favors more inclusive and transformative educational practices, which value cultural and linguistic diversity.

Thus, by integrating the foundations of socioconstructivism, DBR and Socioconstructivist Didactic Codesign, this article proposes an innovative methodological path for Youth and Adult Education. A path centered on joint creation, the use of digital technologies and the appreciation of students' experiences, as pillars for the development of more effective, contextualized and socially relevant pedagogical practices.

The following is a summary table with the main stages of the Socioconstructivist Didactic Codesign (CDS), focusing on its practical application in the context of EJA/PROEJA:

Table 1

Summary table

Stage	Action/Description	Resources	Involved
Reception and diagnosis	Survey of students' needs	Conversation circles, participant observation, knowledge diary	Researchers, participant observers and students
Didactic Co-design	Joint planning of activities based on the demands raised	Google docs, Meetings, mind maps,	Researchers, participant observers and students
Implementation of Actions	Application of the proposed activities with technological mediation	Canva, Lucidchat, jamboard, simulators, AVA	Students with guidance
Reflection and replanning	Formative evaluation, analysis of productions. Feedbacks and restructuring of actions.	Diary of knowledge, dialogues, synchronous meetings.	Researchers, participant observers and students

Source: by the authors in 2024.

The article developed proposes intervention of a dialogical and participatory nature and is based on information collection instruments that enable a deep understanding of the educational context investigated. Among these instruments, participant observation, the knowledge diary and the activities mediated by the Socioconstructivist Didactic Codesign (CDS) stand out.

Participant observation is a valuable tool in qualitative research, especially in action research studies applied to educational and social contexts. This approach allows the researcher to immerse himself in the study environment, actively participating in the dynamics and interacting with the students, in order to understand their experiences and perspectives from within. This immersion makes it possible to capture nuances and details that could go unnoticed through other data collection techniques, such as structured interviews.

By allowing direct monitoring of social interactions and behavior patterns, participant observation favors the construction of relationships of trust between researcher and students, which can result in richer and more accurate information (Lüdke & Marli, 1986). This close

relationship allows for a contextualized understanding of situations and problems, facilitating the identification of needs and the formulation of more assertive interventions.

Another essential instrument is the knowledge diary, proposed by Souza (2015), which is a valuable resource for documenting experiences and reflections throughout the investigative process. Especially relevant for Youth and Adult Education (EJA), the knowledge diary allows students to record their observations and interpretations in a systematic way, contributing to an in-depth analysis of the phenomena studied. These sequential records favor the identification of patterns and trends, in addition to enabling a broader understanding of transformations and discoveries over time.

The knowledge diary also plays a significant role in the subjective expression of students, allowing them to reveal personal perceptions, emotions and reflections on the learning process. This dimension favors the development of skills such as critical observation, reflective thinking, and information analysis, enriching the investigation with significant qualitative data.

The article also makes use of activities mediated by the Socioconstructivist Didactic Codesign (CDS), which are configured as an innovative instrument for the collection of information and meaningful learning. The Dialogued Exhibition, the central approach of the CDS, proposes the use of keywords from the themes addressed, the encouragement of dialogue on these themes, the contextualization with experiences lived by the students, the construction of summaries of individual perceptions and the interconnection of knowledge.

This approach allows learners to take an active role in the learning process, promoting greater engagement and autonomy. In the context of EJA, where learning trajectories are diverse, the CDS approach favors the connection between academic content and the participants' daily experiences, making learning more meaningful and relevant. In addition, it stimulates the development of creativity, critical thinking and the ability to solve problems in an innovative way.

In summary, the article is based on instruments that allow the construction of shared and situated knowledge, aligned with the specificities of EJA. The combination of participant observation, the knowledge diary and the activities mediated by the CDS enables a dynamic investigative process, which values the active participation of the subjects involved and expands the possibilities of understanding the phenomena studied.

3.1 BARRIERS TO THE IMPLEMENTATION OF DIGITAL TECHNOLOGIES IN EJA/PROEJA: INSTITUTIONAL, POLITICAL AND SOCIAL CHALLENGES

When discussing the insertion of digital technologies as learning enhancers in EJA/PROEJA, it is essential to consider the multiple challenges that this proposal faces. Although students are often blamed for difficulties in the use of technologies — whether due to lack of familiarity or digital skills — this perspective, in isolation, is reductionist and disregards the institutional, political, and structural barriers that limit the effective transformation of pedagogical practices.

The difficulties faced by educators and students in this context go far beyond the technical domain. There is a lack of adequate infrastructure, equitable access to devices and connectivity, as well as continuing teacher training for the critical and creative use of technologies. These absences reveal a historical neglect of EJA, which is often devalued within public educational policies and treated as a compensatory modality, and not as a right.

In this scenario, it becomes evident that the challenges faced are not only pedagogical or administrative, but essentially political. As Paulo Freire (1996) warned, every educational practice carries a political position, and, in this case, the difficulty in ensuring universal access to digital technologies in EJA/PROEJA denounces a project of an exclusionary society, which intentionally pushes popular subjects to the margins of knowledge and digital citizenship.

By neglecting the supply of resources and minimum infrastructure conditions, a bourgeois educational logic is reproduced, which perpetuates inequalities and reinforces the exclusion of certain social groups. How can we discuss protagonism and authorship in learning if subjects are not even guaranteed access to the means of digital production? How can we propose the use of active and collaborative methodologies, such as Socioconstructivist Didactic Codesign (CDS), if the institutional environment does not ensure conditions for its implementation?

In view of this, it is necessary to formulate questions that tension the reality experienced: who is interested in EJA continuing to be devoid of technologies? Why is pedagogical innovation encouraged in some modalities, but neglected in others? What education is being built —and for whom?

These challenges require more than technical adjustments; they demand political, pedagogical and ethical confrontations, committed to a popular, liberating and socially referenced education. Overcoming such barriers implies strengthening public policies that promote digital equity, fair financing of EJA, teacher appreciation and recognition of the right to full access to digital culture.

The implementation of pedagogical solutions mediated by digital technologies, therefore, cannot be understood in isolation, but needs to be situated within a political-pedagogical project that disputes the meaning of school, education and technological inclusion as practices of emancipation and social transformation.

4 CONSIDERATIONS

The findings of this study reveal fundamental aspects for the understanding of the teaching-learning processes in EJA/PROEJA, especially with regard to the deconstruction of paradigms traditionally associated with this modality. At the beginning of the interactions, a predominantly passive posture and a certain resistance to participatory proposals were observed among the students, reflecting the internalization of historically constructed social values that often reproduce the logic of heteronomy and the subordination of popular knowledge (Freire, 1996; Brandão, 2002).

The presence of elements such as family, work, school and collectivity appeared recurrently in the subjects' speeches and productions, revealing how these dimensions constitute their world references. Such elements, as Minayo (2003) points out, cannot be analyzed in isolation, as they are part of a complex social fabric that directly influences the perception of individuals about education, knowledge and their possibilities of transformation.

It was also found that the world of work and digital technologies exert a strong influence on the choices and expectations of students. Concerns about the circulation of information and accountability in the use of digital media demonstrate a growing critical awareness of the social role of technologies. This awareness, driven by the proposed pedagogical practices, evidences the emergence of a critical digital literacy process (Pretto, 2012; Silva, 2010), in which subjects develop skills to interpret, analyze and react to the information they consume and share — a central aspect in citizen education and in confronting *fake news*.

However, the appropriation of technologies has still been shown to be, in many cases, marked by a utilitarian logic. Students tend to favor digital tools that have immediate applicability in their routines, which, according to Moran (2015), reflects an instrumental understanding of technology, detached from a broader formative project. In view of this scenario, we sought to promote the articulation between theory and practice, aiming to expand critical understanding and foster the conscious and reflective use of technologies as mediation of the learning process (Valente, 2011).

The proposed activities revealed a high degree of autonomy, authorship and engagement on the part of the students, especially when the contents were aligned with their realities and interests. This active posture dialogues with the conception of education as a

practice of freedom (Freire, 1996) and reinforces the potential of active methodologies, particularly the Socioconstructivist Didactic Codesign (CDS), as a strategy to integrate everyday knowledge with schoolchildren and build significant formative paths (Bacich; Moran, 2018).

Nevertheless, the challenge of school permanence emerged as a central problem. The need to contribute financially to family support often overlaps with the commitment to schooling, reflecting the contradictions experienced by subjects who occupy positions of social vulnerability. This reality points to the urgency of public policies that ensure material and symbolic conditions for permanence and success in EJA/PROEJA, as well as the reformulation of curricula and school management, in order to strengthen the links between school, work and community (Boaventura, 2009; Freitas, 2009).

Another relevant aspect concerns the physical and symbolic organization of school spaces. The traditional layout of classrooms, centered on the logic of control and homogenization, does not meet the contemporary demands of collaborative, critical learning mediated by digital technologies. The proposal of multifunctional and interactive environments, defended in this study, converges with the principles of Freire's pedagogy and with the demands of a more flexible curriculum, open to dialogue and experimentation (Oliveira, 2010; Matta, 2001).

The application of the CDS throughout the intervention proved to be an effective strategy in overcoming the stigmas associated with EJA and PROEJA, as it valued the students' previous knowledge, encouraged co-authorship and promoted the collective construction of knowledge. Throughout the process, it was observed the strengthening of critical attitudes, the expansion of the digital repertoire and the emergence of an active protagonism, fundamental elements for the emancipation of the subjects and for the resignification of learning in contexts of social exclusion.

Returning to the central questions that motivated this study, we seek to answer the concerns raised throughout the studies. To this end, we present a framework that summarizes the main findings and reflections.

The findings of the research indicate that the integration of digital technologies into pedagogical practice in EJA/PROEJA, through active methodologies, occurs by adopting approaches centered on collaboration, student autonomy and shared knowledge construction. To this end, strategies were implemented such as the creation of a shared virtual environment, the use of videos and animations to enrich the meetings, the use of digital interfaces — with a predominance of Canva, as it is more aligned with the students' world of work — and collaborative challenges in conversation circles.

The research revealed that the digital technologies most suitable for Socioconstructivist Didactic Codesign (CDS) are those that promote interactivity, accessibility, simplicity and personalization. Although the school's technological infrastructure has limitations, the combination of the use of personal devices, such as smartphones, and equipment provided by the school allowed the proposed activities to be carried out. The virtual environment, synchronous and asynchronous interactions, and collaborative tools, such as Google Docs and Canva, were essential for the implementation of CDS.

As a pedagogical solution, a Virtual Learning Environment (VLE) was structured, used as a space for the organization of materials, interactions and monitoring of the students' progress. The evaluation of the effectiveness of the pedagogical solution occurred through the observation of interactions during the activities and conversation circles, the analysis of the students' productions and constant feedback, which enabled adjustments throughout the process. The recording of reports in the VLE allowed the identification of progress and difficulties, promoting a more effective intervention.

Based on these findings, the study defined as a general objective to understand how a pedagogical solution based on digital technologies, mediated by active methodologies, can enhance learning in EJA/PROEJA. Among the main considerations and future perspectives, the redefinition of the school space stood out, making it a dynamic and interactive environment connected to the demands of the students; the valorization of active methodologies to stimulate protagonism, autonomy and criticality; the use of digital technologies aligned with the students' context, such as Canva and other digital literacy tools; the breaking of stigmas associated with EJA/PROEJA, promoting a dialogical approach and valuing the students' prior knowledge; and the continued training of educators and managers, encouraging the creation of a culture of educational innovation.

Thus, this article reinforces the importance of integrating digital technologies in EJA/PROEJA, showing that, with appropriate approaches, it is possible to enhance learning and make education more meaningful and inclusive.

We also conclude with these studies that the active methodologies and digital technologies applied, allowed hybridization of possibilities, meeting the needs of young workers and contributing significantly to the rescue of the role of the school in the formation of contemporary knowledge.

REFERENCES

André, M. E. D. A., & Gatti, B. A. (2008). A pesquisa em educação: Abordagens qualitativas. São Paulo, Brazil: Editora da Universidade de São Paulo.

Bacich, L., & Moran, J. M. (Eds.). (2018). Metodologias ativas para uma educação inovadora: Uma abordagem teórico-prática. Porto Alegre, Brazil: Penso.

Barbosa, A. C. M., & Vaiano, A. Z. (2004). O uso da História da Matemática e outras metodologias de ensino em sala de aula. In Anais eletrônicos do VIII ENEM (pp. 1–6). Recife, Brazil: Universidade Federal de Pernambuco.

Boaventura, M. A. V. (2009). A permanência de jovens e adultos trabalhadores na escola pública: Entre políticas e práticas. Campinas, Brazil: Autores Associados.

Brandão, C. R. (2002). O que é método Paulo Freire. São Paulo, Brazil: Brasiliense.

Fagundes, L. da C. (2004). Tecnologia educacional: Da concepção instrumental à reconceituação do processo de ensino-aprendizagem. Porto Alegre, Brazil: Artmed.

Freire, P. (1987). Pedagogia do oprimido (17th ed.). Rio de Janeiro, Brazil: Paz e Terra.

Freire, P. (1996). Pedagogia da autonomia: Saberes necessários à prática educativa. São Paulo, Brazil: Paz e Terra.

Freitas, L. C. de. (2009). A reforma curricular da educação básica: A flexibilização em questão. Campinas, Brazil: Autores Associados.

Gadotti, M. (2003). Boniteza de um sonho: Ensinar e aprender com sentido. São Paulo, Brazil: Instituto Paulo Freire.

Gatti, B. A., & André, M. E. D. A. (2008). Métodos qualitativos de pesquisa em educação no Brasil: Origens e evolução. In Simpósio Brasileiro-Alemão de Pesquisa Qualitativa e Interpretação de Dados. Brasília, Brazil: Faculdade de Educação da Universidade de Brasília. https://www.uffs.edu.br/pastas-ocultas/bd/pro-reitoria-de-pesquisa-e-pos-graducao/repositorio-de-arquivos/arquivos-do-programa-de-formacao/modulo-vii-pesquisa-qualitativa-parte-ii/@@download/file

Gil, A. C. (1991). Como elaborar projetos de pesquisa. São Paulo, Brazil: Atlas.

Lüdke, M., & André, M. E. D. A. (1986). Pesquisa em educação: Abordagens qualitativas. São Paulo, Brazil: EPU.

Matta, A. E. R., Silva, F. de P. S., & Boa Ventura, E. M. (2014). Design-Based Research ou pesquisa de desenvolvimento: Metodologia para pesquisa aplicada de inovação em educação do século XXI. Revista da FAEEBA – Educação e Contemporaneidade, 23(42), 23–36.

Matta, G. P. de. (2001). A escola e a pedagogia do afeto. Petrópolis, Brazil: Vozes.

Menga, L., & Marli, E. (1986). Psicologia da educação. São Paulo, Brazil: Ática.

Minayo, M. C. de S. (2003a). O desafio do conhecimento: Pesquisa qualitativa em saúde (6th ed.). São Paulo, Brazil: Hucitec.

Minayo, M. C. de S. (Ed.). (2003b). Pesquisa social: Teoria, método e criatividade. Petrópolis, Brazil: Vozes.

Moran, J. M. (2015). A educação que desejamos: Novos desafios e como chegar lá. Campinas, Brazil: Papirus.

Oliveira, M. K. de. (2019). Vigotsky e o processo de formação de conceitos. In Y. La Taille, M. K. de Oliveira, & H. Dantas (Eds.), Piaget, Vigotsky, Wallon: Teorias psicogenéticas em discussão (pp. 113–138). São Paulo, Brazil: Summus.

Oliveira, R. P. de. (2010). A escola e as novas exigências sociais: Desafios para a educação básica. In M. H. G. de Castro (Ed.), Ensino médio: Uma nova etapa da educação básica (pp. 85–104). Brasília, Brazil: INEP/MEC.

Pereira, A. (2019). Pesquisa de intervenção em educação. Salvador, Brazil: Eduneb.

Pretto, N. de L. (2012). Estação digital: O uso das tecnologias na educação. São Paulo, Brazil: Autêntica.

Prondanov, C. C., & Freitas, E. M. (2013). Metodologia do trabalho científico: Métodos e técnicas da pesquisa e do trabalho acadêmico (2nd ed.). Novo Hamburgo, Brazil: Feevale.

São Thiago, J. W. de S. (2024). Tecnologias digitais como metodologias potencializadoras na Educação de Jovens e Adultos [Master's thesis, Universidade do Estado da Bahia].

Silva, E. L. da, & Menezes, E. M. (2001). Metodologia da pesquisa e elaboração de dissertação. Florianópolis, Brazil: Laboratório de Ensino a Distância da Universidade Federal de Santa Catarina.

Silva, M. (Ed.). (2010). Sala de aula interativa. Rio de Janeiro, Brazil: Quartet.

Souza, A. A. de. (2015). Diários de saberes. In A. A. de Souza, Círculos de diálogos e práticas de letramentos com as TIC: Saberes, fazeres e interfaces com a EJA [Master's thesis, Universidade do Estado da Bahia].

Thiollent, M. (1986). Metodologia da pesquisa-ação (2nd ed.). São Paulo, Brazil: Cortez; Autores Associados.

Thiollent, M. (2008). Metodologia da pesquisa-ação (18th ed.). São Paulo, Brazil: Cortez.

Valente, J. A. (2011). Tecnologias na educação: O novo ritmo da informação. In J. A. Valente & J. M. Moran (Eds.), Novas tecnologias e mediação pedagógica (pp. 31–44). Campinas, Brazil: Papirus.